



HYPNOSIS by G.H. Estabrooks ©1943

Estabrooks first 5 chapters in PDF form. Originally [webbed](#) by Arnie Lerma.

Chapter I

THE INDUCTION OF HYPNOTISM

PERHAPS the best approach to an understanding of hypnotism is through the popular but somewhat unscientific idea of the unconscious mind. For example, we all have friends who walk in their sleep, in some cases performing (eats of balancing on narrow balconies which would be impossible in the waking state. When they awaken, they have no knowledge of what has happened yet their bodies were certainly under control of some directing force.

Better as an illustration is the man who talks in his sleep. At times we can enter into conversation with him. If we are careful and know how to proceed, he will talk just as sanely and often far more frankly than when awake. Yet when we do awaken him, his mind is a blank as to what has occurred. Again, it would appear that something must be guiding his thoughts during this period of conversation. We will call this "something" the unconscious mind, a very convenient name for our own ignorance, and a concept we will have to examine much more carefully in later pages.

This last example provides us with an excellent introduction to our subject, for the individual who talks in his sleep and answers questions is really hypnotized. In fact, this is one recognized method of producing the trance, namely by changing normal sleep into hypnotic sleep. The skilled hypnotist can generally take the sleep-walker or sleep-talker and shift him directly over into deep hypnotism without either the knowledge or the consent of his subject. Let us see what appears to happen in such a case. When we are in the normal waking condition, the conscious mind is running the body. We act, talk, and think as we please, although such a statement implies "free will," a very controversial point which we will avoid in this book as of only theoretical interest. But in deep hypnotism this conscious mind of ours has been dethroned. Our actions are now under the will of the operator who controls our activities and deals directly with the so-called unconscious mind.

If he tells us there is a black dog standing by our chair, we will see the animal clearly and pet it. We will hear a symphony orchestra at his suggestion and describe the pieces being rendered. He may suggest we are Abraham Lincoln and we will give his Gettysburg Address or he may tell us that we have absolutely no feeling in our jaws, that the dentist is about to pull a tooth and we will feel no pain. He may even throw the whole thing into the future, saying that tomorrow at four P.m. no matter where we are, we will suddenly see a black dog at our side, will pet him and lead him home.

So the first concept we get of hypnotism is that curious picture of an unconscious mind controlled by the conscious mind of the operator. The subject will accept any suggestion the operator gives, within certain limits which we will consider in later pages.

In fact, suggestion appears to be the key of hypnotism. It is the method by which the hypnotist first gains his control and unseats the normal conscious mind. After this, he finds that his only way of controlling the subject is again through suggestion, for the subject left to himself will generally do nothing at all. He acts and behaves as if in normal sleep.

This unconscious mind is much nearer the surface in some people than in others. While the average reader thinks of hypnotism only in terms of the deepest stage or somnambulism, there are actually many degrees of the trance. Only one person in every five has the unconscious so accessible that the conscious can be completely unseated and the operator deal directly with the unconscious. Yet we find evidences of true hypnotic phenomena in almost everybody.

Let us follow the procedure of the operator as he induces hypnosis. This will serve to show all these various states and at the same time illustrate one method of inducing hypnosis, the method most in favor with the psychologist, who prefers the quiet of his laboratory to the stage of the "professional."

Suggestion is his key and relaxation makes the subject more open to suggestion. So, first of all, he has his subject seated comfortably in a chair or reclining on a couch. Then he "talks sleep." The subject is asked to close his eyes and the operator begins somewhat as follows.

"You are falling sound asleep. Relax all your muscles and imagine that you are going into a deep sleep. Deeper and deeper. You will not wake up until I tell you, then you will wake up quietly and you will always feel fine as a result of these suggestions. You are falling sound, sound asleep. Deeper and deeper, deeper and deeper." The hypnotist continues this formula for about five minutes and then tries the first and simplest test.

"Listen to me. Your eyelids are locked tightly together. Tight! Tight! Tight! Your eyelids are locked tightly together and you cannot open your eyes no matter how hard you may try. Your eyelids are locked tightly together and you cannot open them. You may try. I dare you!"

Then something very curious may happen. The subject is still wide "awake" in the sense that his conscious mind hears everything and remembers everything afterward. Yet for some reason or other he cannot get those eyes open, struggle as he will. He seems to forget which muscles to use, and raises his eyebrows in hopeless efforts to succeed. The operator is getting his first control over the unconscious and this control we can see progressing in definite steps. It is much easier, for example, to influence certain small muscle groups, say the eyes or the throat, than larger muscles as those in the arms or legs, while any attempt to get hallucinations-visions-at this stage would almost certainly fail. We will find that, on this first trial, roughly one half of the subjects cannot open the eyes, while this percentage improves as we repeat attempts at hypnosis. In the long

run, after, say a dozen trials, about ninety per cent of humanity will reach the stage when they cannot open their eyes.

The remaining ten per cent will generally report that they feel rested, relaxed, or sleepy, but will deny any real effects. Probably this feeling of relaxation and general sleepiness should be considered as one of the hypnotic phenomena at this very early stage, but it is hard to demonstrate, whereas eye-closure is quite definite.

However, we must note that whereas the hypnotist can get this closing of the eyes in ninety per cent of humanity, this does not necessarily mean that he can go any farther with his suggestions. He may and again he may not. That seems to depend almost entirely on the subject. There are many of these in whom it is easy to induce eye-closure, but quite impossible to get any tests which indicate a deeper stage of hypnotism. No matter how hard the hypnotist may try he can make no progress beyond this very elementary state and psychology is quite at a loss to explain why. Susceptibility to hypnosis seems to depend on certain personality traits which we do not know and cannot influence.

Should the hypnotist succeed in this first test with the eyes, he may proceed at once to one which indicates a somewhat deeper state, such as stiffening of the arm. He will end eye-closure and continue somewhat as follows.

"Now, relax everything. Relax your eye muscles. They are returning to normal. You are sound, sound asleep and will not awaken until I tell you. Then you will awaken quietly and easily. Relax everything. I am now about to make another test. Your right arm is becoming stiff and rigid at your side. Stiff and rigid. The muscles are tightening up. It is stiff and rigid as an iron bar. Stiff and rigid. You cannot bend your right arm. It is impossible to bend your right arm. You may try. I dare you."

Once again we may see that weird condition in which the patient is quite helpless to meet the challenge. He jerks the arm around with a curious sort of tremor and does his best, but his best produces no results. The arm remains stiff and rigid.

Or he may meet the challenge quite successfully, relax his arm and open his eyes. In this case he has broken any influence we might have had. But even if he cannot bend his arm, this fact guarantees nothing as to his going deeper. As in the case of eye-closure, he may be wide awake and remember everything perfectly after the seance. The suggestions of the hypnotist have been

successful up to this point. Beyond it he may be quite unable to make further progress.

If successful, another test is in order. Various operators will use different tests in different sequences but the idea is the same at this early stage, namely to involve larger and larger groups of muscles in these induced paralyses. The next move might easily be something like this. First of all we must remove the effects of the previous test. So we say:

"Relax, relax your right arm. It is returning to normal. Your right arm is resting quietly at your side and there is no strain whatsoever. You are sound, sound asleep. Deeper and deeper. Deeper and deeper. You are losing all control over your body. Your body is floating away and you can no longer control your muscles. For example, it is quite impossible for you to stand up. You are stuck in your chair and it is quite impossible for you to stand erect. You may try but you cannot. I dare you."

And the subject either does or he does not. He may pull himself together, even if the other tests have succeeded, open his eyes and stagger to his feet. On the other hand, he may make ineffective efforts to arise, then decide it is useless and relax in his chair.

In all these early stages of hypnotism we notice a curious lethargy, an unwillingness on the subject's part to exert himself. Very frequently, when we dare the subject to open his eyes, bend his arm or stand up, he makes no effort whatsoever. If we question him afterward, we find that he heard the challenge, was certain that he could move the muscles in question if he wished to, but he just couldn't be bothered to try. He was feeling quite comfortable and wished to remain so.

This must be listed as one of the earliest and best signs of success in inducing the hypnotic trance. It is a very significant cue which the experienced operator never overlooks, for it is not what one would expect if there were no influence. For example, suppose a hypnotist goes up to a gentleman sitting quietly in a hotel lobby and suddenly says:

"Mr. Smith. You cannot stand up. Your legs are paralyzed. No matter how hard you may try you cannot leave that chair." Mr. Smith, once he had recovered from his astonishment would probably stand up immediately and call the hotel management for protection against this madman."

But the hypnotic subject adopts an entirely different attitude. Not only does he think the operator's actions quite reasonable, but he makes no effort at all to assert his own independence. This curious lethargy, found in many people, generally indicates that the individual will become a good subject.

Should the operator be successful up to this point, he will proceed with the next step. He has demonstrated, to his satisfaction, that he can control the voluntary muscles, small and large, but this does not necessarily mean that he is dealing with a good subject, a somnambulist. He still has several steps to make. Next he will try automatic movements, talking to the subject somewhat as follows:

"You are sound, sound asleep, going deeper and deeper. Now, listen carefully. I am about to start your hands rotating one around the other. Here they go, round and round, faster and faster. Keep them moving. They are rotating faster and faster, faster and faster. You cannot stop them. No matter how hard you try, you cannot stop your hands from going around."

As in the previous tests we may get any one of three reactions. The subject may be able to resist the suggestion, stop his hands, and remain quiet. Or he may simply allow them to continue rotating, obviously making no effort to stop them. This is the type of reaction we mentioned in which the subject simply cannot be bothered to make the effort. Finally, he may try unsuccessfully to stop them, stiffening up the muscles in all sorts of curious ways, bumping his hands together, even gripping his coat in an unsuccessful effort to bring the movement to an end.

These automatic movements, as they are called, generally indicate a fairly deep stage of hypnotism. For some reason, they are much more difficult to obtain than mere paralysis or stiffening of any muscle or muscle group. When obtained they generally signify that the individual will be a very good subject, but this is not always the case. As before, many subjects will come to even this state of hypnosis and go no farther. The conscious mind refuses to relinquish its control and the subject will awake, quite aware of everything that has taken place. This type of enforced activity can apply to any set of muscles, even those of speech. We can say to the subject, "Repeat after me the words 'Mary had a little lamb.' Now repeat it by yourself. Keep it up. You cannot stop it. You must keep repeating that sentence." And, in many cases, the subject will do as we have suggested.

If the operator has met with success up to this point, he will now suspect that he has a really good subject with which to deal and will try for somnambulism, the deepest form of the hypnotic trance. After he has convinced himself that the

automatic movements are genuine or that the subject is too deep in hypnosis to even make the effort to resist, he may proceed somewhat as follows:

"Now I am going to ask you a few very simple questions. You are sound asleep and will answer me in your sleep, talking as you have heard many of your friends talk in their sleep. You will not wake up and will have no trouble at all in answering my questions."

It is always well to repeat instructions several times so as to be sure that the subject understands. Then the operator will ask some very simple questions, such as:

"Tell me, what is your home address?" "Where were you on your vacation last summer?" "How many brothers and sisters have you ?"

Questions which have any emotional tone or which the subject may be unwilling to answer for any reason whatsoever should be carefully avoided at this early stage. The subject may easily awaken from this first light trance, have a vague memory of what has happened and refuse to have anything more to do with hypnotism. Even if he does not remember what has occurred, the unpleasantness of the situation may still hang over in a vague sort of way, and make it difficult to obtain full cooperation in the future.

Next, the operator may decide to have the subject stand up and walk around the room. This is accomplished by means of suggestion, which is the key to hypnotism. "You will now stand up. You will not wake up until I tell you, but will stand up, walking in your sleep as you have undoubtedly seen many sleep walkers. You will find no difficulty at all in using your muscles but will remain sound asleep. Now, stand up." And the operator helps the subject to his feet. Should the subject not wake up under this last test, we may be pretty sure that he is now in somnambulism, although a few subjects will cooperate very nicely up to this point but awaken when asked to move about. They may even walk around, obviously in hypnotism and still retain a fairly clear memory of what has happened after the seance is completed.

In general, we accept the hallucination as the final test of hypnotism. We can hallucinate any of the senses but the most common type is that of sight, the "vision" We proceed somewhat as follows:

"Listen carefully. When I give the word you will open your eyes but you will not wake up. You are still walking in your sleep. You will not wake up. You will see standing on the table in front of you a very friendly black cat. You will

go over, pet the cat, then lift it up carefully and put it on the chair in which you have been seated." We repeat these instructions several times, then say, "Now open your eyes. Open your eyes. There is the cat."

This test is more or less crucial. The subject must be in deep somnambulism if he is to be subject to these hallucinations or visions. Should he not see the cat, then the shock of opening his eyes will probably awaken him completely and the seance is over. Should he really have a vision of the cat, his actions will be characteristic. He will pet the animal and play with it in so convincing a fashion that the operator need have no doubt as to what has really happened. The subject is in deep somnambulism and will remember nothing on awakening.

Actually there can be many a curious twist which will deceive even a trained hypnotist. The writer was demonstrating hypnotism before a group of medical students. The time was short, so it was agreed that he would take one of the men and simply go through the motions. The subject would cooperate and take the tests to the best of his ability, simply to provide a demonstration for the others of how hypnotism was produced.

We ran through the tests rapidly right up to hallucinations. Here the writer said to the subject, "Now open your eyes. There is an apple in my hand. Take it and eat it." The subject promptly opened his eyes, grinned, and said, "There's a worm in it." The operator took it for granted he was wide awake, asked him to sit down and continued his talk.

But when he dismissed the group, his demonstration subject remained seated, with his eyes wide open but unable to move. "Wake me up, will you," he said, "I can't move." So the operator waked him up in proper fashion. The operator must never take anything for granted in hypnotism, but must be quite certain that his subject is wide awake before leaving.

This is a very important point in technique. Let us suppose that the subject has arrived at somnambulism and the hypnotist wishes to end the seance. He awakens the subject by some such means as the following: "I will now count to five. By the time I get to five you will be wide awake and feeling fine. Wide awake and feeling fine. One, you are waking up; two, you are waking up; three, you are almost awake; four, you are nearly awake; five, you are awake."

Even if the subject should awaken by himself in any of the tests leading up to somnambulism, it is nevertheless a good plan, after he opens his eyes, to assure him, "All right, you're awake now. Wide awake and feeling fine." This very

simple precaution may appear a little silly in many cases but it is always well to be sure.

We hear a great deal about the subject refusing to awaken from hypnotism. This appears to be a continual dread of people who are learning to hypnotize. What do they do if the subject will not awaken? If the operator will follow some such technique as we have outlined, this problem will never present itself. Throughout the entire seance we keep stressing the idea, "You will not wake up until you are told. Then you will awaken quietly and easily."

Should the patient refuse to awaken-the writer has never had such a case-the proper procedure is to allow him to remain quietly in the trance. The hypnotic "sleep" will change over to natural sleep and sooner or later the subject will awaken by himself. But experience will soon teach the operator that his real problem is to get his subject into hypnotism, not get him out of it.

That is the reason we insert the phrase, "You will not wake up until you are told." Some subjects have the habit, why we do not know, of suddenly opening their eyes in the very midst of the seance and awakening completely. They seem just as surprised as the operator, but undoubtedly there is some very good reason for this state of affairs. The following case is a good example.

The writer was hypnotizing a young man who gave all the signs of being an excellent subject. Everything went very nicely until the operator said, "I am now going to ask you a few simple questions which you will answer." Immediately, the subject was wide awake, trembling violently with every sign of intense fear. This was odd, so the operator repeated the seance with exactly the same result. Then the explanation dawned on him. So the next time, before asking any questions, he said, "Listen carefully. There is nothing to fear. I am in no way interested in your private affairs. I wish to ask you a few very simple questions simply to show that you are in touch with me, that you are listening to me. If you do not wish to answer any particular question, just shake your head, but I assure you that I am not going to ask intentionally any question which could possibly embarrass you. Is that clear?"

He nodded his head and everything progressed in proper order from that point. Obviously it was the proverbial case of the guilty conscience. The subject feared the operator was going to pry into his secrets and awakened in order to protect himself.

The writer has described the hypnotic technique most used in the psychological laboratory but there are endless variations to this particular procedure, and

several other entirely different techniques which are equally effective. With this particular attack, for example, many operators prefer to start with the subject's eyes wide open, waiting until he closes them from natural fatigue. So far as the writer can see, it makes very little difference if we start with the eyes open or closed. He prefers to start with them closed.

Then the writer himself would not use the technique as he has outlined it. He awakens the subject after each test and starts all over again. A much slower approach, to be sure, but one which gives the operator ample opportunity to size up his subject and adopt his attack to any peculiarities the subject may have.

We will see later that, on occasion, subjects do curious things which can be very disconcerting to an operator. The writer prefers his slower, more deliberate approach because it enables him to meet these peculiarities at the earliest possible moment. But most operators would consider him overcautious. The writer also would never spend more than five minutes at any one seance in this early stage of the game, but he knows of excellent operators who will hammer right along for one hour if necessary in an effort to get somnambulism at the very first effort. And, of course, operators may vary the order of the tests and use different muscle groups. Speech muscles instead of eyes, inability to move a leg as opposed to an arm, or other substitutions.

But it all adds up to the same thing. If we use the "sleeping" technique the approach is slow, calm, and monotonous. The reader will note a complete absence of many things which popular opinion links with the hypnotist. We have described a procedure which anyone can master. There is no mention at all of "will power," for it has nothing to do with hypnotism. The operator does not dominate the weaker will of his subject and beat him into submission with his "dark, hypnotic eye." Quite the contrary. He does his best to persuade the subject to cooperate, making it quite ' clear that success is very difficult without this cooperation on the part of the individual in question. We will see later that a subject can very easily be hypnotized against his will but that this again has nothing to do with will power on the part of the operator.

We have not mentioned the famous hypnotic pass because this also is quite unnecessary, a hang-over from those early days of hypnotism during American Revolutionary times when Mesmer was passing his "magnetic fluid" into the bodies of his patients, and Benjamin Franklin with others in Paris was exposing Mesmer as a fraud.

Nor are there any special, intricate techniques which have to be mastered. Hypnotism has nothing of mystery in its nature. A small corner of science, it is open to all who are willing to use the necessary care in mastering a technique and persistence in applying the same.

In America we have been a little unfortunate in our introduction to hypnotism. Most of us have made its acquaintance via the stage and the "professional," whereas in Europe these public exhibitions of hypnotism are generally not allowed. As a result we find there in almost every town of any size some doctor who is an authority on the subject and uses it as needed in his practice.

But with us the medical profession fights shy of hypnotism, knowing full well that any individual who starts using hypnotism in his practice becomes associated in the public's mind with the stage artist, the quack. Even his companions in medicine look on him as a little queer, so that in America hypnotism has died a very natural death, so far as medicine is concerned. However, this very neglect on the part of the doctor has turned out for the best. It has forced hypnotism back into the psychological laboratory where the psychologist, with a much greater range of interest than his medical compatriot, has been doing some very excellent work during the past twenty years.

For the time being, however, this public prejudice is still very strong. The writer is especially anxious to present hypnotism to the reader as a branch of science quite divorced from mystery and from the supernatural. Certainly nothing we have presented in our technique for inducing hypnotism savors of the "black art" and we can assure the reader that the following pages will be just as free of any suggestion of the mystic.

There are many ways of producing the seance, so let us examine a technique at the opposite extreme from that we have described. The stage hypnotist breaks every condition which would seem to be necessary to the psychologist in his laboratory, but, strange to say, he is just as successful as is the true scientist. "The brighter the lights, the bigger the crowd, the better the success" as one professional put it. Obviously, then, quiet and relaxation are not necessary to the induction of hypnosis.

The following is fairly typical of the technique employed by the stage performer. He has the subject stand erect with his feet close together and proceeds somewhat as follows: "Stand erect and listen carefully to my voice. Close your eyes. Just imagine that you are a board standing on end. You are a board standing on end and you are falling back. You are falling backward into my arms. Falling back, back, back. Let yourself go. I will catch you. You are

falling back, back, back. You are losing your balance and are falling backward." At this point the subject generally loses his balance and does fall backward. The operator promptly stands him on his feet again and at once returns to the attack, this time standing in front of the subject. "Look into my eyes and clasp your hands together. Clasp your hands together firmly. Make an effort and put some muscle into those fingers. Clasp your hands together firmly, firmly. Your hands are locked together. Your hands are locked tightly together. You cannot take your hands apart no matter how hard you may try. Your hands are locked firmly together. I dare you. You cannot take your hands apart."

If he is dealing with a good subject the hands will be stuck together and it will be impossible for him to take them apart. So the hypnotist proceeds at once. "All right. Relax. You can take your hands apart. Keep looking in my eyes. Now open your mouth. Stiffen up your jaw muscles. Your jaws are stiff and locked in place. It is impossible for you to close your jaws. Absolutely impossible. You cannot pronounce your own name. Your jaws are locked in place and you cannot pronounce your own name. It is impossible for you to pronounce your own name. All right. Relax."

The hypnotist gives his subject no time to recover his poise, but returns to the attack at once. "Keep looking into my eyes. Stiffen out your right leg. Stiffen it out. Your right leg is stiff and rigid. You cannot move it. You cannot take even one step forward. Your right leg is stiff, rigid, and useless. You are rooted to the ground. You cannot move. All right, relax."

But the operator gives him no time to relax. Immediately he begins on his next move. "Close your eyes. The lids are locked tightly together. You cannot open your eyes. They are firmly closed. You are now falling backward into my arms. Let yourself go. You are falling back into my arms." The subject falls backward and the operator eases him down onto the floor or into a chair, and continues. "You are asleep. Sound, sound asleep, just as if you have taken chloroform or ether. You are sound, sound asleep. Deeper and deeper. Deeper and deeper. You are sound, sound asleep." The operator continues in this vein for a minute or two, then at once shifts the subject over to active somnambulism.

"Stand up. You are sound asleep, walking in your sleep. Now open your eyes, but remain asleep. Look. There is an elephant standing over there. Here is a gun." He hands the subject a broom. "Now, go stalk the elephant. Remember he is a dangerous beast and you must take advantage of every bit of cover." Thereupon the subject proceeds to creep up on the supposed elephant, hiding

behind chairs, tables or bits of scenery until he finally shoots the animal with a loud "bang" and proceeds to examine the corpse.

From this point the professional will probably go through the usual stage procedure, have his subject fish for whales in a goldfish jar, bark all around the stage on all fours, give a Fourth of July speech and finally awaken his very embarrassed subject just as he is about to remove most of his clothes. It is this sort of thing which has given hypnotism such a bad name with the average American, who always feels that somehow it is linked with sleight of hand and "magic" in general.

We may condemn the stage artist for bringing the subject into such disrepute, but we must admit that he gets results. The reader will also be impressed with the fact that his method of attack stands out in sharp contradiction to that previously described in almost every respect. Those conditions of quiet relaxation on which the psychologist insists are conspicuous by their absence. Nor is he in any way worried about having the cooperation of his victim. After the first half minute he runs things his own way, outraging the subject's dignity and good taste in every possible manner.

It is well to bear this stage technique in mind when we consider the real nature of hypnotism in Chapter III. Most psychologists are either unfamiliar with his technique or ignore it completely. If they numbered one or two of these professionals among their friends, they would not fall into some very common errors as to theory.

The stage operator will vary this technique indefinitely but his underlying theme is always the same. A high pressure attack which more or less aims at throwing the subject off balance. Then a rapid and continuous follow-up which does not give the subject time to recover himself. But we should note that, for all his extravagant claims, he ends with just the same proportion of somnambulists as does the psychologist; namely, one in five.

The two techniques we have described up to the present, with their endless variations, represent those most commonly used to induce hypnotism, but there are others. One, for example, simply aims at transforming natural sleep into the hypnotic variety. The method of procedure here is somewhat as follows: The operator seats himself beside the sleeping subject and begins talking in a very low voice. "Listen to me. I am talking to you and you will answer in your sleep. You will talk to me in your sleep just as you have often heard others talk, but you will not wake up. You are sound asleep but you hear my voice clearly in your unconscious mind." The operator gradually raises his voice, puts his hand

on the subject's head to further attract attention, and when his voice has risen to normal volume, say after five minutes, he asks the subject some very simple question, such as "Where do you live?"

In general, the operator has to press repeatedly for an answer until one of two things happen. Either the subject awakens, and this will occur in four-fifths of the cases or the subject starts talking in his sleep. When this occurs, the hypnotist proceeds as he would with any other somnambulist, has the subject stand up, walk around the room, open his eyes, see hallucinations and finally return to bed with the suggestion that he will sleep soundly until morning and awaken at the usual time. For obvious reasons, this technique is very limited in its possibilities for use, yet under certain conditions, as in a hospital, it does present very definite advantages.

At this point it would be well to mention the "disguised" technique. The reader will have noted that when the operator changes normal sleep into the hypnotic trance, the subject has nothing to say in the matter. This raises the interesting and very important question as to whether anyone can be hypnotized against his will and the answer is "certainly." If we wished, we could quibble as to whether transfer from sleep to trance was hypnotism "against the will" or only hypnotism "without the consent" of the subject. Not a very important point because the subject may definitely refuse to have anything to do with hypnosis in his waking state yet this sleep transfer method would still work. This, it seems, would be definitely against his will.

However, there are certain places in which hypnotism might be used where it would have to be employed without the consent of the hypnotized. Such would be the use of hypnotism in the detection of crime or in warfare. A prisoner in jail or after a battle certainly would not willingly cooperate with the hypnotist if he knew the operator was after information which might send him to the electric chair or which would put him in the light of a traitor to his country. So here we employ the disguised technique. We hypnotize the subject without his realizing what is happening. We ask his cooperation in a harmless little psychological experiment using some piece of psychological apparatus as a front behind which to work. Perhaps the simplest is the device for measuring blood pressure. We explain to the subject that we wish to test his ability to relax, and we can measure this by his blood pressure. That sounds very reasonable so we fix the rubber band on his arm, tell him to close his eyes and relax all his muscles.

We further explain that, of course, the deepest form of relaxation is sleep, and that if the subject can fall asleep it will show that he has perfect control over his

nervous system. Then we proceed to "talk sleep" much the same as in hypnotism, being careful to avoid any references to trances, seances or hypnotism, and omitting all tests except one. After five minutes, during which period we have checked several times on the blood pressure to keep up the delusion, we tell the subject that we would like to see if he can talk in his sleep, since this represents the very deepest form of relaxation. If he does, he is in deep hypnosis. If he does not, no one is any the wiser as to what has actually been taking place. We repeat this little experiment several times until we have obtained results or convinced ourselves that no results are to be obtained.

Should the authorities ever decide to use hypnotism extensively either in the detection of crime or in warfare, this disguised technique may prove extremely valuable. Not only is it just as effective as any other mode of attack, but it is of such a nature that very few laymen would recognize it as anything other than what it purports to be; namely, an experiment to measure ability at relaxation. Moreover, the apparatus used can vary indefinitely. The so-called lie detector provides an excellent screen behind which to work. The writer finds that an ordinary watch with which to take pulse rate as a measure of relaxation is quite as satisfactory.

The previous paragraphs also illustrate another very important point in any consideration of hypnotism. Science is eternally on the move, questioning, probing, inquiring. The truth of yesterday may be false today. Many of the older hypnotists, writing around 1900 were quite definite in their assertions that no one could be hypnotized against his will. They were just as sure that hypnotism could not be used for criminal purposes, and they were quite right, in so far as they knew hypnotism.

But these early authorities were almost always medical men. Their interest lay in treating the weaknesses of the human machine. To them such questions were merely side issues, and very unpleasant side issues at that. Hypnotism was unpopular, linked in the public's mind with black magic and mysticism. They felt it their duty to defend it at every turn. When faced with these very unpleasant possibilities they settled the issue with a few experiments which proved their own point, but which are quite worthless from the viewpoint of modern psychology.

The subject, armed with a rubber knife, would gladly murder his victim. Give him a steel knife, however, and he would recoil in horror. The subject could not be hypnotized when he made up his mind to resist, but was quite easily thrown into the trance when he cooperated with the operator.

We will see, in later pages, that all this proves very little. Hypnotism is now investigated in the laboratory by the scientist. He cares very little about the popularity of his subject and insists on a thorough investigation of every question. To be sure, the facts he unearths may be unpleasant. Hypnotism may be a very dangerous thing in the hands of the unscrupulous, but so is the aeroplane, the rifle, the disease germ. Science wishes to know the facts. Once discovered, these truths are handed over to the public. If that public uses the aeroplane to drop bombs, rather than to carry passengers, the scientist is in no way to blame. So with hypnotism. The psychologist seeks to unearth the truth. That is his problem. The use to which his discoveries may be put is something different again and something for which he has no responsibility.

Another most interesting way of inducing the trance is by means of the victrola record. The operator simply dictates his technique to the record, plays this back to the subject and the record will put the subject into hypnotism just as well as will the voice of the hypnotist. A very neat example of how little "will power," passes, and hypnotic eyes have to do with the trance. About as nonmystic a procedure as anyone could wish.

The writer prepared one of the first of these records with the assistance of the Victor people and it is now marketed through the Marietta Apparatus Company. Many others have since made their appearance, all good and generally intended for some specific purpose. It is now so very easy to record the human voice that there will undoubtedly be a great future for this technique. The operator will prepare a definite record for a particular subject, instruct him how to use it and literally apply absent treatment in the best sense of the word.

Yet we must bear in mind that this use of hypnotic records has very definite limitations. The record is excellent for purposes of instruction, which was the reason for its first appearance. It is very useful for experimental work, where the psychologist in his laboratory wishes to be sure that his subjects are receiving exactly the same instructions as are those in the laboratory of a colleague 1,000 miles away. It can even be used to induce hypnotism the very first time.

But the operator should always be present, for very naturally no record, no matter how skillfully devised, can meet the various emergencies which arise when we induce the trance. Some subjects tend to become hysterical, some even show a disposition to go into convulsions and some others are difficult to awaken. The victrola record cannot handle these situations.

However, there may be a real use for this technique after the subject has been hypnotized several times. Then it might be very useful from the medical angle, when the subject is being treated for, say, alcoholism or stammering. The doctor might very easily prepare a record for such a subject, aimed at reinforcing and repeating suggestions already given in the hypnotic trance. Such a record would, of course, be so arranged that it would also awaken the subject from the trance.

This could very easily be arranged and would be a great convenience to both subject and doctor. Hypnotism is notoriously time consuming and any device which could meet this objection might make it far more acceptable to the average medical man. We will deal more fully with these proposals in a later chapter. There is always that very interesting possibility of hypnotism over the radio. While we do not have the slightest doubt that certain members of the radio audience could be thrown into the genuine trance by a hypnotist using such a means of contact, the whole thing is impractical. The operator is too far removed from his various subjects and should anything go amiss the chances for trouble, including lawsuits, would be infinite.

It is very possible that in future some enterprising company may devote a period to broadcasting health suggestions, which the audience will accept in the relaxed state and which might be very helpful. But this is only a possibility and something for the future. Up to the present nothing has been done. The proposal is open to many practical objections.

In future pages the writer will point out that we are often quibbling over words. Hitler is an excellent hypnotist, and we really mean that statement to be taken seriously. We will see that his technique is almost identical with that of the stage hypnotist, that the underlying psychology is the same and the results much more effective. To be sure, there are differences, but these differences are very superficial. So we do have hypnotism of a very effective type over the radio but it bears another label.

There has been a great deal of work done with drugs as an aid to hypnosis, all to practically no end. It would seem reasonable to the reader that any good anaesthetic, say ether, should make almost any person susceptible to hypnotism. The subject is "unconscious" in both states so what gives one should produce the other. Actually the subject is far from being unconscious, he is not "asleep" as so many people assume and all our work with drugs appears to have been wasted effort. Perhaps drugs may still have a use in lowering resistance discover beforehand who these very susceptible people are. The operator would then save himself much wasted effort. How does he do it? The

answer is unfortunately all too definite. It cannot be done at least in the present stage of our work. We know of no tests which will foretell with any degree of accuracy which individuals will develop into really good subjects. Much work is being tried along these lines and some research is yielding promising results, as that at the Harvard Psychological Clinic. The fact remains, however, that we cannot as yet use any tests here with anything like certainty.

We can, however, save ourselves a great deal of work if we follow certain leads. In general, the individual who talks in his sleep will be a good subject. The person who walks in his sleep, the "natural" somnambulist, will almost always go into "artificial" somnambulism or deep hypnosis. The feeble-minded are notoriously hard to hypnotize, as are also some classes of the insane, as the schizophrenics. But the hysteric on the contrary is generally a very good subject. Children between the ages of seven and twelve are excellent, the proportion here running as high as four in five, as opposed to the one in five average of normal adults.

This leaves us with no means at all of judging the susceptibility of the average adult. But we can still do considerable to save ourselves time and trouble. We can use some of the simplest tests of hypnosis as indicators. For example, the "sway" technique helps us. Here we really borrow from the stage hypnotist. The subject is asked to stand erect and we attach to the top of his head a system of strings and wires which measure accurately the sway of his body. Then we ask him to close his eyes, suggest to him that he is falling backward and get an accurate measurement of just how far he does sway. The speed and extent to which he accepts these suggestions give us a fairly accurate picture as to his possibilities as a subject.

Another rapid way of picking the good subject, in the absence of any equipment, is simply to use the test of clasping the hands, as mentioned previously. We begin by requesting the subject to clasp his hands firmly together, and to imagine as vividly as possible that they are locked together, that he cannot take them apart. We reinforce this by our own suggestions that the hands are locked tightly together and once again the difficulty he has in parting his hands gives us a fairly good cue as to what will happen with more advanced tests.

However, the writer finds that the best way to discover good subjects is by using group hypnotism. He takes a group of about a dozen individuals who wish to co-operate, seats them in chairs, tells them to close their eyes and proceeds to talk sleep. Then after a couple of minutes he dares them to open their eyes, and notes results. The entire group is told to awaken-just a

precaution as almost never will anyone go into trance at such short notice-and next the operator asks them to clasp hands, following this by the usual challenge. Then he stiffens out the arms of the entire group and dares them to relax the arm muscles. Finally, he starts their hands rotating and defies them to stop the movement. After each test, of course, he assures himself that everyone is wide awake.

The experienced operator can easily pick the good subjects with such a technique, and have the whole thing over in ten minutes. He observes these individuals who are continually in difficulty when he challenges the group or who are too relaxed to even make an effort. These he notes as future good subjects and dismisses the group when he wishes. The only real difficulty here is one of discipline. The whole procedure is pretty certain to strike some member of the group as being very funny, but a little experience will soon enable the operator to handle these situations without offense to anyone. A lazy man's way of handling this matter of group hypnosis when searching for subjects is to use the victrola record. The operator may either make one for himself or use one of those supplied by the houses which handle psychological apparatus.

It is very easy to get co-operation from a group with one of these records. It is impersonal and looks much more like a genuine psychological experiment, at least to the layman. Once again, with practice, it is a simple matter for the experienced hypnotist to watch the group and pick out the good subjects on the basis of how they behave to the victrola record.

Some people are so extremely susceptible to hypnotism that at times we get curious results even when using a victrola record. The writer recalls one such incident. He had a group who wished to listen to his record. They knew very little about hypnotism but had heard that this marvelous gadget, just on the market, would actually hypnotize.

They were all seated comfortably, the writer reached for the record-and it wasn't there. A colleague was using it in another building. So he took the first record in sight, put it on the victrola and said, humorously, "Now listen to that."

Returning five minutes later he was astonished to see that one of the group was evidently going into deep hypnosis. So he turned the record over and remarked, "That will do the trick very nicely." And it did. The subject was deeply hypnotized and had to be awakened by the usual method. The record in question was a Swiss yodelling song! The man expected to be hypnotized, was an excellent subject, and his own imagination did the rest.

The tests which we have suggested as of aid in detecting those individuals who will go into deep hypnotism, are, however, only bits of the hypnotic technique itself. As we mentioned before, there is no way of telling the good subject, except by actually using hypnotism in some form or other. Contrary to general opinion, susceptibility has nothing to do with a "weak will." Neither has it any relation to intelligence. In actual practice it is much better to deal with highly intelligent individuals. They will get the knack of the thing and co-operate more quickly than others.

Nor has hypnotism anything to do with the sex of the subject. Many people have the idea that women, especially young women, are much more easily put into the trance than are men. Scientific research gives no basis whatsoever for such an idea. There appears to be no difference.

We will mention here another point to which we will later return. Group hypnotism in the popular sense of the word is quite impossible. No hypnotist, no matter how good, could meet a group of, say, thirty people and hypnotize the lot, unless of course by some weird chance all thirty happened to be good subjects. The odds against such a chance are very heavy. In other words, the Hindu rope trick is not done by group hypnotism. As a matter of fact it never occurred at all in spite of a great deal of popular legend on the subject. If the reader doubts this statement, and he will, he may look up any good book on magic or any stage magician. We give some very good imitations in our modern theaters when the necessary apparatus is at hand, but this could never be duplicated in the open under the blazing Indian sun with the crowd surrounding the juggler on all sides.

The techniques we have described can be mastered by anyone, just as anyone can learn to run an automobile. To be sure, some people turn out to be much more expert drivers than others, but there is certainly no mystery connected with driving the auto. This does not mean that everyone should learn to use hypnotism or should, of necessity, be permitted to use it if he did learn. That is quite another thing. We simply say it is possible for anyone to learn and stress this point because of popular notions of will power, the dark hypnotic eye, black magic, and other weird ideas.

Finally, many readers may question the wisdom of being so very frank on this matter of inducing hypnotism. We reply that the danger is quite imaginary. The average layman cannot use hypnotism because he has neither the time nor the interest. A mastery of technique demands hard work, and the process of hypnotizing is notoriously boring and tedious. One must have more than a mere

passing interest in the subject if he is to settle down and really master hypnotism.

In a later chapter we discuss the dangers of hypnotism, especially in connection with crime. Here, again, the point is largely imaginary, and the reader is asked to reserve judgment until we discuss such questions. The writer will contend that hypnotism can be used for criminal ends, but such use would demand an operator of the highest skill. For any amateur such attempts would only lead to prison. Moreover, our police are quite familiar with everything written in this book and could detect a crime involving hypnotism quite as readily as any other. This may come as a revelation to the reader but, for example, our own Federal Bureau of Investigation knows more about possible criminal uses of hypnotism than anyone in the country. So we may safely leave this aspect of our problem in the hands of the proper authorities, who are quite capable of handling it. The scientist is interested only in facts. How these facts will be used is a question which he is not called on to answer.

Chapter 2

MORE COMMON PHENOMENA

WE DEVOTED our first chapter to the induction of hypnosis, pointing out that only about one in five of the general population will go into the deepest stage of hypnotism; namely, somnambulism. We wish to deal here with the more common phenomena which we find in hypnotism once the trance has been induced. The reader must bear in mind that, while the more striking things which happen are found only in the deepest stage, nevertheless there are many conditions in lighter states which are well worth our attention. We generally accept amnesia or lack of memory as the chief characteristic of somnambulism. The subject has no memory at all when he awakens as to what has occurred in the trance. Yet a great many things may occur with the subject wide awake.

For example, the writer had occasion to use hypnotism with a friend, a good pianist. He did not lose consciousness but it was quite possible to paralyze large groups of muscles, so much so that he was unable to arise from his chair. The operator asked him to open his eyes, moved the chair close to the piano and made a bet with him that he could not leave it for the next half hour. He played as well as ever, but every time he tried to stand up the operator simply said, "Sorry, it can't be done." That simple suggestion was quite enough to keep him glued in his chair.

This interference with use of the muscles is very easy, even in the light stages. Professor W. R. Wells of Syracuse University has made very extensive

experiments with "waking hypnotism." This is a very interesting point since many of the older investigators thought hypnotism merely a special variety of sleep, a theory which is now generally rejected.

The writer recalls one of his very earliest contacts with hypnotism. A stage operator was demonstrating in the local theater. One of the audience, a dignified member of the community and a deacon in his church, turned out to be a very good subject. The hypnotist had him stand on his head, bark around the stage on all fours, take off a goodly portion of his clothes and give, in general, a very humiliating exhibition. He then awakened his subject who just as promptly knocked him down. The subject had been quite conscious throughout the whole performance but had been unable to resist the suggestions of the hypnotist. He remembered everything that had occurred and was very naturally indignant.

Wells produces his results in "waking" hypnotism with much the same attack as does the professional. A high pressure volley of suggestions is used without giving the subject time to recover his balance. With this particular technique he does not mention "sleep" and finds that the subject very often remembers everything when he comes out of the trance.

We also know that any good subject can recall consciously everything that has happened when hypnotized, if we assure him in the hypnotic trance that he will do so. As a matter of fact it is often quite enough for the hypnotist to say, in the waking state, "You will remember everything that occurred in the last trance. Think. It is all coming back quite clearly." The entire series of incidents will then return to consciousness.

But while unconsciousness may not be necessary to produce all the phenomena of hypnotism, the fact remains that the somnambulist generally remembers nothing unless we take some special steps to get recall. So we will describe the trance state from now on, using the typical somnambulist as an example. The key to hypnotism is suggestion. The subject, left to himself, does nothing. The hypnotic state may then change to normal sleep and he will awaken in ordinary fashion, or he may just remain quiet, always open to suggestions from the operator but quite incapable of acting on his own accord.

This suggestion, by the way, need not be verbal, although that is the usual type. Any form of suggestion is quite satisfactory provided the subject understands what is desired. For example, if when the hypnotic trance is under way we take the subject's arm or hand and mold it into any gesture, then hold it there for a second or two the subject will conclude that we wish this sort of thing. No word

need be spoken. With a little practice we will get "waxy plasticity" wherein the subject's limbs can be molded like wax into any position, no matter how uncomfortable, and will remain in the shape we have given them.

Moreover, the subject is very quick to co-operate with the operator and at times almost uncanny in his ability to figure out what the operator wishes. He seems to read his mind and this trait undoubtedly led many of the older hypnotists into wild conclusions as to the ability of the hypnotic subject as a "mind reader."

Rapport

It is a very curious thing that the subject will *only listen to the operator; he will receive suggestions from him alone*. Others present may talk to him, shout orders and give suggestions, but he ignores them as completely as if they were on the planet Mars. This curious condition we refer to as "rapport." The subject, we say, is in rapport only with the hypnotist.

Here, we see one of those strange contradictions which are so characteristic of the hypnotized person for actually, he hears everything which is taking place, but for some curious reason he chooses to do a little acting. He behaves as if there were no others present in the room.

For example, we take a good subject and proceed to show how mind reading occurs. The operator conceals his handkerchief, tells the subject to concentrate and get the object in question. Others are present. They make suggestions and give him orders but he ignores them completely and is at a total loss to find the handkerchief.

Then, one of those present whispers to another, but quite loud enough for the subject to hear, "The handkerchief is in the brief case in the study." Apparently the subject has heard nothing but a minute later he goes to the study, opens the brief case and returns with the handkerchief. It can be shown by such experiments that rapport is not real. The subject always has his ears open to pick up any cue, yet in almost every case the new subject will immediately start on this little piece of fraud.

This illustrates a point we will mention frequently. The subject when hypnotized may be quite a different person from the same individual if awake. He is so anxious to co-operate, to show his abilities, that he may try almost any trick in order to do what the operator demands. This requires that in many tests we keep the subject under the very closest observation.

For example, the older hypnotists claimed many remarkable things about hypnotism. One of these was the ability of the subject to raise blisters under suggestion. The standard practice was to put a bandage on the subject's wrist and suggest to him very strongly that the bandage was a mustard plaster which would shortly produce a blister and strange to say, in many cases the suggestion was successful. An actual blister might not always appear but the skin under the bandage would become very inflamed and red, blood appearing in many cases. Then some experimenters became suspicious. They left the subject in the room by himself but kept him under close scrutiny through a peep-hole. It was then found that the subject, in his great desire to co-operate, was playing tricks on the hypnotist. He would deliberately rub the bandage with all his strength so as to irritate the skin beneath. Worse still, some subjects were seen to take a needle, thrust it in under the bandage, and break the skin in this manner. Yet, when awake, these same subjects were models of honesty and even when questioned in hypnotism they would deny all knowledge of trickery. So we have to watch the subject very closely in many experiments. The mere fact that he claims to be in rapport only with the operator means nothing. It is just a little pose which, for some reason or other, he feels bound to maintain.

Another curious thing is that we can shift the rapport very easily. The operator merely says to the subject, "Listen carefully. Mr. Smith is here in the room with us. I am going to shift the control to Mr. Smith. He is standing in front of you. I will repeat the first five letters of the alphabet, a to e. When I get to e, Mr. Smith will be in charge. You will listen only to him and accept only his suggestions." Under these conditions Smith now becomes the operator and the subject will treat him as such until he chooses to hand back control to the original hypnotist.

So easy is this trick that we can even shift control from a victrola record to any operator who happens to be present. We simply work the suggestion into the victrola record, using exactly the same formula as given above. The operator then takes over control from the record, treats the subject as he would any somnambulist and awakens him whenever he chooses.

The mesmerist or magnetist of one hundred fifty years ago did even better. He would magnetize a tree. In future, the subject had only to touch the tree and he would go into the mesmeric trance, receiving all the beneficial effects of the magnetic fluid from the tree in question. Many of these old practices seem pretty weird but we must remember that science was then in its infancy. Perhaps the best known of all hypnotic phenomena are the so-called hallucinations. The reader will be familiar with these if he has ever seen a stage demonstration of hypnotism. He will recall that the subject, following a

suggestion by the hypnotist, will see an elephant or a tiger on the stage and will hunt it with a broom for a gun. The operator will put a goldfish bowl in front of him, tell him it is the Atlantic Ocean, equip him with a fishing line, and tell him to fish for whales. Actually this would be more in the nature of an illusion but they are so close to hallucinations that we will treat all under the same head. These hallucinations of sight or visions are very easy to get in any good subject and like everything else in hypnotism they depend on suggestion. The hypnotist simply tells the subject to open his eyes. Then he says, "Look. The door is opening and a black dog is coming into the room. His name is Rover. Go over and pet him." This he does. The hypnotist adds, "He's probably hungry. Better give him something to eat." The subject glances around, takes a plate from the table, puts a stick on it for a bone and proceeds to feed the dog. All this is done in a perfectly normal fashion which leaves very little doubt in the spectator's mind that the subject thinks he is dealing with a real dog.

The hypnotized person will treat every hallucination with great reality. Tell him the dog is friendly and he will pet it, but say the dog has bitten him and he may retreat in fear. Or he may seize the dog by the neck and throw it out the door; the type of reaction depends on how the subject would normally behave. Suggest to the subject that he is watching a football game and he will cheer on his favorite team in very convincing fashion. Tell him he is in a cathedral and he may kneel, that the police are coming in the front door to arrest him and he will try to leave by the back.

What we obtain depends largely on the type of individual. The writer has a favorite trick of telling the subject there is a "galywampus" in the room. Of course, neither the subject nor the operator has ever seen such an animal, so it is very interesting to note what will happen. Some subjects will simply look puzzled and refuse to answer. Others, realizing the joke, will grin and say, "There ain't no such animal" or pass it off with some such remark. But others will rise to the occasion in noble fashion. Recently one subject described it as "a pink elephant with wings, a trunk on both ends and bowlegged." Asked what noise it made, he replied, "That depends. When you mention Roosevelt's name he laughs like a human but if it's Willkie he just looks sad and sighs." Needless to say the subject was a good Democrat, had a vivid imagination, and was using it.

The reaction to these hallucinations brings out a very important point which the reader must always bear in mind. The hypnotized person is still an individual, not a tool, and behaves according to his own background. Place a glass of water in front of the ardent prohibitionist, tell him it is whisky and he must drink it. Generally he will refuse. Insist and he may become very angry, even awaken

from the trance. Place that same glass before another subject who has no such scruples and he will drink the liquor with great relish.

Tell a communist he is talking to a political meeting and that he is to defend capitalism. He will probably do just the opposite, criticizing his audience and their views in no uncertain fashion. The subject is always willing to play a part, provided it does not go against any deep-seated convictions. But when we suggest an act which is in conflict with any of these, he may become very obstinate. We will discuss this in a later chapter devoted to hypnotism and crime.

It is quite easy to hallucinate any of the senses, but not always quite as spectacular as in the case of vision. Hearing, for example, lends itself very easily to this attack. We can have the subject listen in rapt attention to a supposed symphony concert, describing every number and criticizing the way in which each is played. It is possible to have him listen to a political talk and then describe it afterward, for example one by Mr. Roosevelt. The experience will be very real and he will stoutly defend his views at a later period; this in spite of the fact that the President was on the air at exactly the time when he was supposed to be listening and gave quite a different address. After all, the subject contends he heard it and certainly believes his own ears! In some of the senses we can obtain a curious mixture of hallucination, illusion, and anaesthesia. For example, take the following cases. It is quite possible to give the subject a glass of kerosene, tell him it is very fine wine, and have him drink it. He does so with great satisfaction. Or we can reverse the process. We can give him a glass of whisky, tell him it tastes vile and that he will be very sick to his stomach once he drinks it. That probably will also work.

Such a technique was once in great favor for treating alcoholics. If the subject proved to be a somnambulist, he was assured in hypnotism that every time he took a drink in future he would be violently sick. If it worked, and it generally would, the cure became an endurance contest with everything in favor of the hypnotist. After all, drinking is not much of a pleasure if every drink is only the prelude to a vomiting fit. G. B. Cutten in his *Psychology of Alcoholism* deals in detail with this matter of treating the drunkard.

Similarly it was once common practice to handle smoking by the same method. The subject was assured that tobacco smoke would in future taste very bad and a cigarette would be followed by an upset stomach. This was really hallucinating the senses of smell and taste. A friend of the writer in a near-by city tried this on a young man at the request of his parents but unfortunately he did not ask the consent of the subject beforehand. Once his victim heard of the

plan he was very indignant over the whole thing, swore he would smoke in spite of any hypnotist and went at it again. In six months time he was smoking with reasonable comfort, but he almost ruined his digestion in the process. Smell lends itself very nicely to hallucinations, one of our best tests of hypnotism coming in this field. If we have any doubt as to whether the subject is deeply hypnotized, we tell him he is about to smell some very fine perfume. We then hold a bottle of strong ammonia under his nose and tell him to sniff; if he is in deep hypnotism he seems to enjoy the perfume, but if not, or if he should be bluffing he will come out of the trance in very short order. We also have some very curious cases wherein we can deceive the skin senses. For example, we can take a pencil, hold it near the subject's hand, and tell him it is a red hot poker. If we touch the hand, he will draw it away, sometimes shrieking with pain. Actually, we have never been able to prove that the skin is really "burned" by this technique, although some of the older authorities did report just this. Proof in science, as we will later see, is no simple matter.

Since we are on the skin, let us report a very interesting experiment by Liebeault, the real father of modern hypnotism. He had one exceptionally good subject on whom he reported the following. He was able to trace letters on this man's forearm with the blunt end of a pencil. Later these letters would appear as letters in blood! Not only that, but with this one subject he carried the experiment even farther. The subject was able to do it himself, suggesting to himself-autosuggestion that the blood letters would appear! Liebeault stresses the fact that such remarkable phenomena could only be obtained with the very best of subjects.

Liebeault did his work around the 1870's and no other operator since has been able to get these results. This tends to cast a doubt on the experiment since Liebeault may not have been careful enough with his subject. It is quite possible that, if left alone, he could have scratched his arm with a needle along the lines of the letters and yet, strange as it may sound, there is no reason why these results could not have been obtained. They would depend on the action of the autonomic nervous system and we do know quite definitely that we can influence this by means of hypnotism.

We really have two nervous systems in our bodies. All our voluntary muscles are controlled by the central nervous system, composed of the brain and spinal cord, but our internal organs also do their work by muscular action, in many cases. The lungs, heart, stomach, even the arteries and veins could never function if it were not for the activity of muscles and these "involuntary" muscles are under control of the autonomic nervous system. This system lies

outside the spine and, although joined to it, acts in general quite independently of the other system.

For example, try and influence your heart beat as you read this book. It is almost impossible. Yet strange to say, we can influence the heart through hypnotism. We can make it beat faster by mere suggestion, especially if we tell the subject he has, say, just escaped from a bear and is very much excited. Excitement, as we all know, tends to make the heart beat faster and the scene we suggest to the subject is so real to him that he behaves as if it were a real bear. Yet very few of the readers could imagine such a scene vividly enough to get any real reaction. The writer once saw a stage hypnotist suggest to a subject that he was falling over a cliff. He was actually falling from a table onto a pile of cushions. The subject gave a wild shriek of fear as he fell and collapsed. That was genuine. A doctor and heart stimulants were necessary to save his life.

Nor could any of my readers by imagining that they were eating some very disgusting dish, make themselves vomit. Here again the hypnotist can influence the autonomic nervous system, as seen in the action of the stomach. As we mentioned before, we have only to suggest to the somnambulist that liquor tastes bad, that it is disgusting and in future he may find that even the smell of liquor will turn him sick to his stomach. Not only that, but we can influence the subject's stomach in much more subtle fashion. We can, for example, suggest to him that he is eating a beef steak. Not only will his mouth water but we will find that his stomach secretes the proper juices to handle the meal in question. For a very sane and critical discussion of all these rather unusual phenomena we refer the reader to the work by Clark L. Hull of Yale University, *Hypnosis and Suggestibility*.

A Russian psychologist recently reported an even more interesting stomach experiment. He claims that in hypnosis he was able to give his subjects large quantities of alcohol, with the suggestion that they would not get drunk. And they did not either in hypnosis or after the trance! We may add that before such claims could be accepted they would have to be checked on by many other operators.

At this point a very natural question will occur to the reader. Why all this doubt and uncertainty? If we are in doubt, then why not clear the matter up at once and in short order. Unfortunately hypnotism of all subjects does not lend itself to this offhand treatment. For example, let us take the question of muscular strength in hypnosis. N. C. Nicholson investigated this using the ergograph, an instrument designed to measure the amount of work a subject can perform with

one of his fingers. It is easy to measure the work of a finger and what applies to the finger should, in theory, apply to any other group of muscles. Nicholson conducted a series of experiments and concluded that "during the hypnotic sleep the capacity for work seemed practically endless."

But later P. C. Young repeated Nicholson's experiments and found, at least to his satisfaction, that muscular strength in hypnotism was no greater than in the normal waking state. The results would have been far less disturbing had either of these men been poorly trained and incompetent. Unfortunately, Nicholson did his work at Johns Hopkins and Young did his at Harvard. Both were very careful experimenters. The sharp contradiction is hard to explain but, in the writer's opinion, was undoubtedly due to the attitude of the hypnotists. The good subject co-operates in wonderful fashion. Nicholson's subjects realized they were supposed to show an increase in muscular strength and did so. The opposite applied to Young's experiments.

A great deal of our work in hypnotism must always be carried out with this fact in mind for the subject tends to give what is expected. Returning to this matter of physical strength, we are all familiar, at least have read about, the uncanny ability of most subjects to rest with the head on one chair and feet on another. Then to have someone sit on their chest while they recite poetry. This muscular rigidity can be obtained in most good subjects, provided the hypnotist makes it quite clear that he expects it.

But if the subject suspects that the hypnotist does not want this result, he will not stiffen up his muscles. For example, we take a very good subject and tell him that we are now going to give him a very severe physical test, we are going to put his feet on one chair, his head on another, and sit on his chest. Then we say to someone present, "Of course, it's impossible. All this talk about seeing it done on the stage is nonsense. They use fake subjects and magician's tricks with which to do it."

Now we try to stiffen out our subject, but he knows we do not expect results. So we get none. He makes no effort and sags down in discouraging fashion whenever we try to stretch him between the two chairs. Yet we must bear in mind that there is no reason why we could not get this exceptional increase in strength. Few readers realize the tremendous strength of the human muscles, when we can really make them exert themselves. We use a drug named metrazol to treat a form of insanity, dementia praecox. This throws the patient into violent convulsions, so violent, in fact that he often breaks his own bones by the sheer force of muscular contraction. This is no wild myth but a grim fact of which every psychiatrist is very conscious.

A recent survey has shown with the aid of X-ray pictures that twenty-five per cent of all patients undergoing metrazol treatment actually crack some bones of the spinal column in these savage convulsions. The psychiatrist now uses another drug, curare, to offset this. Curare paralyzes the muscles, so they hope that the patient can now get the mental shock without the body strain. At the present writing we have not enough material to say that this treatment is as good as straight metrazol, which gives excellent results in many cases. But these examples, and we could give many more, will show the reader the tremendous power of the human muscles under certain conditions. So there is no reason why we might not get a great increase in strength with hypnosis.

Then there is another possible explanation. Fatigue is a defense to the body. When we feel tired it is a sign that we have worked hard enough and should stop until the body gets the waste cleared away from the muscles. There seems to be a fatigue center in the brain. If we can paralyze this, the individual will not feel tired, no matter how fatigued. We will see later that with hypnotism we can get anaesthesia or lack of feeling in many parts of the body. It may be that this great muscular strength in many cases is due to the inability to feel fatigue once the operator assures the subject that he can do great feats of strength without being tired.

This is one reason why no sane hypnotist would dare suggest to a football player before a game that he was to play the game of his life and would be able to put forth his very best without feeling in any way tired. Perhaps he would, but in so doing he might easily exert himself so much that he would die of a heart attack.

Returning now to this matter of producing blisters in hypnotism. Even if they were produced, it would illustrate nothing supernatural. The walls of the blood vessels are under control of the autonomic nervous system. We can definitely influence this system in hypnotism, but not in the waking state. Granted a person with a very sensitive skin there is no reason why these vessels could not break and let out blood or blood plasma under the bandage, so creating a blister or actual bleeding. Normally it will not occur so we tend to think of it as impossible just as we tend to feel that the subject cannot really increase his muscular strength. But, in the opinion of the writer, there is strong probability that blisters can be produced. He also feels certain that muscular strength can be greatly increased by means of suggestion.

We must again remind the reader that proof in science is often difficult to obtain, and in hypnotism this is notoriously so. There can be no doubt as to hallucinations and no doubt that we can influence the activity of most body

organs. But we must suspend judgment on bodily strength and such curios as raising blisters; yet there are many other things claimed of hypnotism, some accepted and some in doubt.

Accepted, for example, is the fact that we can produce anaesthesia, loss of sensation in almost every sense organ. This is most easily seen in the loss of pain, technically known as analgesia. As a matter of fact, this was one chief use of hypnotism in the early days. An English doctor in India by the name of Esdaile performed the first such operation of which we have record in 1845. During the course of his long practice in that country he did thousands of operations, about three hundred of these being of a major character. Unfortunately or fortunately as the case may be, the use of chloroform was discovered about this time and ether shortly afterward. These drugs are far more certain in their effects and much easier to use than hypnotism, which rapidly vanished from use as an anaesthetic.

We do still hear of cases wherein it is used, in which the condition of the patient is such as to make the use of drugs inadvisable. There has also been some use of hypnotism in both Germany and Austria of late years, especially at childbirth. But the interesting fact is that hypnotism does banish pain. In fact, this absence of pain supplies us with our very best test of hypnotism in those situations wherein it is absolutely necessary to be sure that the subject is not bluffing.

The writer uses a little device known as a variac. This plugs into an ordinary light socket and delivers the exact voltage required. The contacts are placed on the palm and back of the left hand, blotting paper soaked in a saturated salt solution being used to insure the very best form of contact. Under these circumstances the reader would find fifteen volts very painful, twenty unbearable. But a subject in somnambulism can take sixty, even one hundred twenty volts without flinching.

Here we get into the usual argument so dear to the hearts of all psychologists. Is it anaesthesia or amnesia? Perhaps the subject actually felt the pain, but merely forgot about it on awakening, just as he tends to forget everything else which happens in somnambulism. The question is mostly of theoretical interest, but it serves to illustrate the difficulty of answering many a query in hypnotism. Considerable work has been done on this problem but up to the present the question remains unanswered. The anaesthesia may or may not be real but the subject acts as if it were, insisting after the trance that he felt no pain. Yet, whether real or genuine, it does not have nearly as much importance as the average reader may think. Pain is the doctor's friend, although we as sufferers

may not always see this point. It is nature's great alarm signal. Without doubt hypnotism could completely remove the pain in many a case of acute appendicitis, but that would not prevent the appendix from rupturing. It might only serve to lull us into a false sense of security. Similarly pain may mean many things. Gastric ulcer, kidney disease, rheumatism or an ulcerated tooth. The doctor's problem is not to remove the pain but the cause of the pain.

For example, two of the worst "killers" in the whole disease world are tuberculosis and cancer, mainly because they give us the warning after it is too late. Tuberculosis can be quite easily cured in its early stages, but unfortunately it is a painless disease. We can easily be suffering from an advanced case of tuberculosis and yet be fairly comfortable, beyond a very troublesome cough and a feeling of continual fatigue.

Likewise most cases of cancer could be cured in the early stages, if only medicine could locate them. But cancer also uses a painless attack until the disease is well advanced. When we finally go to our doctor with severe abdominal pains and he diagnoses it as cancer, we might as well call the undertaker the next day and get our earthly affairs in order. The reader is very liable to become much too enthusiastic over the possible uses of hypnotism. It undoubtedly has its uses, and we will deal with these in future pages, but the obvious use is often more apparent than real.

We can render any of the sense organs anaesthetic. Pain gives us our most graphic results but vision is just as easily influenced. We can suggest to the subject in hypnotism that he is blind and to all outward appearance he becomes so. With his eyes wide open he will walk into a chair or make no movement at all when someone pretends to strike him in the face.

Is this blindness genuine or is the subject again staging a little act for the benefit of those present? Very probably it is a bona fide performance. The subject is really blind, but only in a functional sense. It might be well to explain what we mean by this statement, by way of helping us to understand the problem.

We divide human ailments into two broad groups, the functional and the structural or organic. For example, our hospitals for mental disease always contain a large group of insane suffering from dementia praecox, or schizophrenia. This is a functional insanity as there seems to be nothing wrong with the brain. If we examine it after death we find it is just as good as our own. On the other hand, we could also find in any such place a number of cases with general paresis, generalized syphilis of the brain. These people are also "crazy."

Very much so in fact, and here we would find that the brain had been severely damaged by the syphilis germ.

Thus with insanity, for instance, we have both the functional and structural cases, both equally insane but in the former the brain is uninjured, in the structural cases the brain has been harmed by something, be it syphilis, sleeping sickness, tumor, stroke, or what not.

The blindness we get in hypnotism is of the functional type. There is nothing whatsoever wrong with the eyes, yet it is very real for all that. This sounds hazy and mysterious so let us see how a man could be stone blind with eyes and brain just as good as our own. In order to see, hear, feel pain, or experience any sensation at all the action of nervous tissue must be involved. Here the unit is the neuron, the separate tiny telegraph line which nature binds together in the bundles we call nerves.

But these neurons have some very interesting qualities which make them much better than our own human made wires. The most interesting point about the neuron, from our point of view, is its ability to break contact. Nervous tissue is, of course, all over the body but the brain and spinal cord are the chief centers of concentration. Especially in the brain do we have a tremendously complex telegraph exchange.

Literally billions of these tiny wires connect with each other. We call the point of contact a synapse, and here very fine brush-like structures from one neuron come very close to those from another so that the "spark" can easily jump the gap. As we learn anything, from running a typewriter to Chinese, pathways are worn through the "grey matter," so that the passage of the nerve current over certain synapses becomes much more easy.

But the reverse of this can also happen. When we "forget" it is a sign that for some reason or other the pathway we wish to use has become blocked, probably because the little brushes which make contact at the synapses have drawn so far apart that the current cannot pass. It seems probable that in sleep all intercommunication in the grey matter is cut off in this way. Similarly when a person gets "drunk" or is knocked unconscious by a blow on the head. We could also quote experiments from various drugs, such as arsenic, to uphold this view. Now let us suppose that the operator suggests to his subject in hypnotism that his whole right arm is senseless, has no feeling in it. If the synapses open in those parts of the brain where we feel pain from that arm, then the nerve currents simply cannot register. We have cut off communication just as effectively as if we cut the nerve leading from the arm, yet there is nothing

wrong with the brain. Structurally, it is perfect, all the parts are there and capable of working. But they are not working or "functioning" because of this break at the synapses, so we say that we have a "functional" anaesthesia in the arm. And this "opening" of the synapses is probably due here to suggestion. This anaesthesia is very real, for all that. No amount of play acting would enable any subject to lie quietly on the operating table and have his arm amputated. Yet this can be done in deep hypnotism. Similarly we can get the functional blindness we have been discussing. In this case it is very difficult to prove that the subject is not bluffing. We have no easy, positive tests, but we can argue from the analogy of anaesthesia in the arm. This is very real, so anaesthesia in vision is probably just as real. And, of course, there is no "structural" injury to the brain.

The trouble with this very neat synaptic theory is that it is almost impossible of proof, though it seems highly probable. We can see the synapse under the microscope, but we cannot see its movement because this only takes place in living tissue and would be difficult to get under the very best conditions. We cannot turn a microscope on the brain of a living animal.

Yet some day we may be able to actually observe these movements in the synapses. Several years ago Spidell of the University of Virginia won the highest award from the American Association for the Advancement of Science by demonstrating a very beautiful technique. He was actually able to see the growth of nerves in the tail of a living tadpole! That may strike the reader as very unimportant but science values curious things. A year or two previous to this another man got this award by showing that protozoa in the intestines of the termite digested his wood diet for him and so allowed him to live on pure wood! That solved many a problem that had puzzled the zoologist. Only a year or two ago a psychologist, Maier, won the coveted award by demonstrating that he could drive rats insane by frustration, by continually puzzling them over the location of their food. Silly? That experiment means a great deal to the psychiatrist, the "nerve specialist," who treats the human insane.

So with luck in the near future we may actually be able to see the movement at the synapses through the microscope. At present it is a very neat theory, probably true but incapable of being proven. Yet it shows us how all these curious things may happen in hypnotism and be very real, yet involve no change or injury to the brain. When the psychologist or doctor mentions that word "functional" he is not merely throwing up a smoke screen to hide his ignorance. Functional blindness is a very real thing as thousands of "shell shock" cases from the war can testify.

Similarly by means of hypnotism we can obtain functional deafness or anaesthesia of the ear, the organ of hearing. It seems to be very real for the subject is quite unconcerned with even the loudest of noises. He simply ignores them. A little more spectacular is anaesthesia of smell. We have already mentioned the fact that in deep hypnosis the subject can inhale strong ammonia without a quiver. If we suggest it is perfume, he even enjoys the process and that involves hallucination.

Taste is equally easy to reach, for the subject will chew up and swallow the vilest tasting dishes we can give him if we assure him that he tastes nothing, or even better, if we tell him he is eating a beef steak. All these weird things have a sound physiological basis. If the reader would really understand hypnotism he must banish from his mind all trash about the mystic and the supernatural. Everything is to be explained and can be explained by the activity of a very complex nervous system. With hypnotism we can cut out entire memories for certain events which have taken place in past years. The surgeon can do the same up to certain limits, but he must injure the nerve centers permanently. We can make the shift with no injury and at far greater speed than any telephone exchange.

We have considered the matter of anaesthesia of the various senses. How about hyperesthesia? We heard a great deal about this in days past, about the ability of the subject to develop great keenness of vision, to smell the very faintest odors or hear the very smallest sounds. Let us take a typical experiment as reported by Bergson, a French philosopher much interested in hypnotism. He had one very excellent subject, a boy, with whom he could get the most unusual phenomena. Bergson was very much interested in the matter of telepathy or thought transference, and with this boy he proved it to his satisfaction. The subject would stand up facing the hypnotist who would then hold an open book behind the subject's head. The operator would thus be able to see what was on the pages but the subject, of course, could not, unless he had eyes in the back of his head.

Bergson was then delighted to find that the hypnotized boy could read the printed pages which only the operator could see. He had proved telepathy, which was a great achievement. Or had he? Bergson was a very careful investigator. He became suspicious, for the thing worked too well. Then he made an astonishing discovery. The boy was not reading his mind at all but the reflection of the book in the hypnotist's eyes! The letters on the reflected page would have been about 1/256 of an inch high; in other words, microscopic. Moreover, having once discovered the trick, Bergson had this subject demonstrate with other things, such as photographs reduced to very tiny

dimensions. There was no doubt about it. This particular subject in hypnotism had a keenness of vision which was equal to that of a microscope.

Unfortunately, as so often happens when we consider the work of these older authorities, there is the usual joker. No one has been able to repeat Bergson's experiment, and proof in science is essentially a matter of repetition. It is very difficult to say why this experiment cannot be repeated. Certainly no one would wish to accuse Bergson of deliberate fraud. Very probably he was not careful enough with his controls; he did not watch his subject closely. At any rate, all that modern science can do is reserve judgment and hope that some operator will be able to duplicate his results under proper conditions. Those of us who are familiar with the older type of hypnotism know of another experiment which bears on this subject of visual acuity. The operator would take, say, twenty perfectly blank white calling cards and tell the subject that he was about to show him some photographs. Then, as he placed these blank cards before the subject he would stop at one and say, "Look. There is a photograph of your mother. Do you recognize it?" "Certainly."

"Will you recognize it again?" "Of course."

The operator made a slight mark on the back of this card W that he would be able to pick it out again. Then he continued to show the rest of the pack. Next he shuffled the cards, handed them to the subject and said, "Now pick me out your mother's photograph." Strange to say, the subject could do so! The writer has been able to demonstrate this himself and has seen it done by others.

Apparently what actually happens is something like this. The subject realizes that he is supposed to remember that particular card so he looks at the face very carefully and remembers some very trifling difference in the edge of the card, picks out some (law in its surface or some trifling difference in texture. When next he looks over the cards he chooses his mother's "photograph" by the card which he thus remembers.

This would not, perhaps, be so much due to greater intensity of vision as intense concentration and an ability to remember some very tiny detail. This is not as farfetched as it may sound. Those of the readers who have had the pleasure (?) of knowing the professional gambler and the opportunity of studying his cards realize with what speed and accuracy he can spot his "marked" cards while dealing hands to four or five at once. There is at least one concern in the United States which specializes in the manufacture of such marked decks, the "marking" consisting of some very slight variation in the pattern on the backs of certain key cards. If the average human in his normal state can arrive at such perfection through practice, there is no reason why the

hypnotic subject, with his great powers of concentration could not do the same. We have another very interesting type of experiment quoted by the older writers. This involved the sense of smell. They would take the handkerchiefs of a dozen people, allow the subject to smell each one, then mix them up in one mass and ask the subject to return them to their owner's. And the subject would oblige! But unfortunately there was far too great a chance of the subject picking out the handkerchief by other cues, as the make of the article, or expression on the owner's face to allow us to accept these old experiments at their face value. At present the verdict of psychology on hyperesthesia is "unproved." As a matter of fact very little careful work has been done on this subject in the laboratory. Almost the only good piece of investigation here was by P. C. Young at Harvard and he says that the senses of the subject in hypnotism are no more acute than they are in the normal state. We must simply wait for more work. The writer feels that hyperesthesia probably does exist, that Young's negative results were due to the attitude of the operator, so very important in all this work. But neither can the writer prove his point.

It might be well here to explain just why we have all this trouble about proving a point. Proof in science, especially in psychology, is no easy matter. First, the individual case may mean very little, although even one subject who could demonstrate his ability consistently could do a lot. But in general we must have a group of subjects and this group must be "statistically significant," so that the results cannot be charged to chance. Such a group, to be above criticism should number at least seventy!

Then we must have a control group, who have not been hypnotized with which to compare the experimental group.

This should be just as large, same sex, and as near as possible the same age, education, and economic status. This control group in a subject like hypnotism is very important because even if we could show that a group in the trance did have very great keenness of the senses, we leave ourselves wide open to criticism. How do we know they could not do the same in the waking state? Try and find out? Not at all, because we might be running into the results of posthypnotic suggestions given without intention on the part of the operator, something we will discuss in the next chapter. All these precautions may appear nonsense to the average reader but science is a very stern taskmaster. Any psychologist who runs experiments on too small a group, or on a group which is not checked against a properly selected control group may prepare for some very rough sledding. Needless to say, the task of preparing seventy somnambulists is a very difficult one. Then we have all the problems of keeping strict observation during the experiment. So the reader must remember

that we do not settle these problems overnight with a couple of subjects or by the comfortable "arm chair philosopher" method. There is probably no more difficult branch of research in all science, so please be lenient when we continually say that such and such results are still in doubt.

There can be no doubt, however, about delusions, or false beliefs. Do not confuse these with illusions or false sense impressions, so closely related to hallucinations. For example, if we place a black hat on the table, and say to the subject, "Look. There is a black cat," he will pick up the hat and caress it as he would a cat. It is a false sense impression. But if we say to him, "You are now a dog. Get down on all fours and bark. There is another dog there in the corner. Chase him from the room," he will give a ludicrous imitation of a dog. This is a false belief, although seeing the other dog was an hallucination. A little points about which it is very easy to become tangled. These delusions, as we will see later, may be of the very greatest importance, especially when we consider the possible tie up between hypnotism and crime in a later chapter. For example, suppose we say to the subject in hypnotism, "You are Mayor La Guardia of New York City. I want you to give a political speech." He will do his best to imitate the fiery Mayor and may give an astonishingly good speech. He believes himself to be the Mayor, a delusion or false belief.

Now we go a step further and say, "You were in Utica this afternoon between four and six o'clock. You visited the station and while there you saw Mayor La Guardia pass through the station on his way to the Hotel Utica. You will maintain this when you wake up." When he awakens, he will stoutly insist against all argument that he was in Utica and did see the Mayor, telling how he got there, how he got back and weaving a story which at least sounds convincing. Suppose we go a step further. "You saw the Mayor pass through the station. Then you went into the taproom. There you overheard two men at the next table discussing a plot to assassinate the mayor this evening as he boarded the train for New York City. Here are the pictures of the two men. Be sure you remember them for you will see them again tonight at the Utica station." Once again a delusion, mixed with hallucinations and the posthypnotic suggestion, but primarily a delusion, a false belief, yet one which might make things very bad for two innocent men in Utica.

These delusions can be extremely real and the subject will defend them even when they are quite impossible. We say to a subject, "You were in the first World War with the Americans. You then went under the name of Captain G. N. Smith. Remember this when you wake up." When he awakens we bring up the subject of the last World War. He volunteers the information that he served in it under the name of Captain G. N. Smith. You point out that he is only

twenty five. He would have to be at least forty five if his story were true. He maintains he really is forty five and then the battle is on. We attack him on all sides, pointing out how ridiculous his claim is. He defends himself with a beautiful series of lies and finally becomes quite indignant when we continue to doubt his word. Of course, here again we run into the problem of whether he is just bluffing, playing a part to please the hypnotist or really does believe he was Captain Smith in the last war-a very difficult point to decide.

So also are those curious cases which we call "regression" and which we can get in hypnosis. For example, we take a subject of forty years old and say to him, "You are now a boy of five. You will behave and think exactly as you did at the age of five." He gives a very convincing demonstration. We then say, "Now you are ten. Grow up to that age." He does so. Next we have him progress to fifteen. Is it genuine? It certainly looks like a good case of faking. But strange to say, if we try him out with the intelligence test we find that he hits the proper mental age and intelligence quotient with very considerable accuracy. Of course, he could also fake this but it is very doubtful if any of the readers, unfamiliar with intelligence tests, could give the proper answers for a child of five, ten, or fifteen. It really looks like genuine regression which we know does take place in actual life. Much more work must be done on this subject, most up to the present being in Russia and perhaps not too carefully supervised. We hear much in some literature about the ability which subjects have to reckon time in hypnosis. We can tell them that they will be able to tell exactly when 4453 minutes have passed and they will call the time exactly. Once again, not proved to the satisfaction of science. For example, one of the older experimenters, Bramwell, working around 1895 found that one particular subject could actually call the time to the exact minute.

But unfortunately he had no control subjects. What guarantee do we have that this subject or any of the readers could not do the same thing in the normal waking state? Ridiculous! Not at all! Try it on yourself. When you are lying quiet and relaxed, note how very steady is the heart beat. If it is sixty eight to the minute it will not vary more than one or two strokes in an hour. It is a simple matter of counting. If the subject is allowed to awaken, the very strictest watch would have to be kept that he was not counting the ticks on a clock, listening to the town clock or actually consulting his own watch. In the psychological laboratory, at least up to the present time, we find no evidence of such capacity. Stalnaker and Richardson have done the best work here and their results show no increase in ability along these lines. Another example of why we must be very critical of the work by the older authorities. The writer always suspects that in these laboratory experiments the operator has the wrong

attitude. He is out to "debunk" hypnotism, the subject realizes this, and helps in the de-bunking process with all his ability. We have considerable evidence for this in some experiments but only time and much work will tell how important operator-attitude may be.

It is very easy to make serious mistakes in hypnotism. The writer has made at least one he knew of, possibly many more. We use in psychology a very neat little piece of apparatus to measure the "psycho-galvanic reflex." This measures the resistance of the body to a very small current of electricity, the resistance generally being taken through the hand. It is a very curious thing that this resistance changes under any emotional strain. Suppose it is normally 5,000 ohms. The experimenter pricks the subject with a pin. Immediately the resistance drops to 4,000 ohms, swinging back again to 5,000 after about half a minute.

Equally interesting is the curious behavior of skin resistance in sleep. It will normally go to 40,000 or 50,000 ohms. The writer found in a series of experiments that the skin resistance of a subject when hypnotized also soared to 50,000 ohms. This proved conclusively that hypnotism and sleep were closely associated. The writer publishes his results-and they were found to be completely misleading. They were good as far as they went, only they did not go far enough. Other experimenters demonstrated that while this was true for hypnotism induced by the "sleeping" method, it was true only for this method and only as long as the subject remained quiet. The moment he got up and walked around his resistance became that of the normal waking subject.

Now, of course, the writer should have taken all this into consideration before publishing results, but man is just mere man. Science progresses by such mistakes. One research worker finds the subject will commit a crime in hypnosis. Another goes out to prove him wrong-and does so to his satisfaction. Then the fat is in the fire until one backs down or the consensus of scientific opinion proves him wrong. The writer has backed down at least once, may do so many more times, so it ill becomes him to criticize others too severely. The reader must realize that his opinions on some points as expressed in later chapters of this book are only his opinions. He is convinced that the weight of scientific evidence is on his side, but hypnotism, of all subjects, does not lend itself to dogmatism. We must await very extensive research before we have the final answer to many problems.

Clairvoyance, the ability to see distant scenes, is one such example. Many of the older authorities were quite positive that their subjects could describe events hundreds of miles away, say in the old home town. The writer has often

met amateur operators who would proudly show how a subject could tell just what was taking place in some town of Tennessee or Kansas. But they never took the trouble to check up! F. W. H. Myers in his *Human Personality and its Survival of Bodily Death* seems to have felt that in hypnotism the psychic or supernatural powers of some subjects could be increased.

But modern psychology brings in another verdict of "unproved," in this case very highly improbable that it ever can be proved. The reader should get a clear distinction in his mind.

For example, there is not a reputable psychologist in the United States who would dare write an article questioning the existence of hypnotism and certain phenomena in hypnotism. His reputation would be ruined.

With reference to spiritism, and psychic research, the exact opposite is true. No one would dare say that clairvoyance or mind reading, as two examples of such phenomena, were proved. Some, such as J. B. Rhine at Duke University might say they believed in the existence of telepathy, even had a certain amount of evidence in its favor, but proof? That is something quite different again. A blunt assertion that the matter was settled to the satisfaction of psychology would find ninety-nine per cent of the psychologists registering an emphatic "no." This applies to all so-called spiritistic phenomena.

We further note that recent work by the group at Duke University interested in extra-sensory perception shows that hypnotism has nothing whatsoever to do with the abilities of people along these super-normal lines. So the reader will realize that hypnotism has no relation to spiritism or the supernatural. In later pages we will use hypnotism as a means by which to explain the trance state of the medium. Also such phenomena as automatic writing, crystal gazing, automatic speech, even talking with the dead. But even so we shall see that the things we find are quite normal, quite within the limits of what might be expected in the teachings of psychology.

The reader who is familiar with hypnotism cannot have failed to note that we have not mentioned several of the more interesting phenomena. For example, the famous posthypnotic suggestion and also autosuggestion. These are so very important that we cannot treat them in this short space, so we devote the next chapter to their consideration.

Then there is that very interesting question of dissociation, considered by some the key phenomenon of hypnotism. We prefer to deal with this problem in our

chapter, The Nature of Hypnotism, since it is so closely linked with the entire theory of hypnosis.

Also we have avoided mentioning one of the most useful of all hypnotic phenomena, at least from the viewpoint of medicine. This is that curious ability which the somnambulist has to recall long forgotten childhood memories. This is the keynote of "hypno-analysis," a branch of psychotherapy which is destined to assume more and more importance as the prejudice to hypnotism in this country diminishes.

Associated with this is hypermnesia, wherein the subject in hypnotism or as a result of posthypnotic suggestion is supposed to develop a much better memory for things which have occurred in the immediate past, such as the learning of poetry or of history. This we postpone until we consider the possible uses of hypnotism in education.

Then we might mention other curiosities of the trance which we leave to later chapters, such as the ability to form conditioned reflexes and persistence of normal reflexes, all important but best reserved to our chapter on theory. Will the subject in hypnotism commit a criminal act? Even more interesting, will he confess to crime in the trance state? Obviously these questions involve some very important phenomena of hypnotism. Just as obviously these questions cannot be answered in a few pages so we devote a later chapter to this whole question of the connection between hypnotism and crime.

Here we have only presented the more spectacular side of hypnotism, things which can-or cannot-be demonstrated in five minutes with any good subject. Far more important to psychology are the questions of hypnotism in education, in crime, even its possible uses in war. These, we will see, can only be investigated by very long and careful work. Some, indeed, cannot even be studied properly in our present day society. The solution must wait for the future. But the past few pages cover most of those things which the lawman associates with the word hypnotism. We now pass on to the more unusual phenomena concerning which the average reader probably knows very little.

Chapter 3

THE POSTHYPNOTIC SUGGESTION AND AUTOSUGGESTION

THERE is a rule in hypnotism that everything we get in the trance can also be obtained by means of the posthypnotic suggestion. Also, that anything we find in either can be found in autosuggestion; and, finally, that everything we obtain in any of the three will be encountered in everyday life. In this latter case we

refer to the subject as hysteric, neurotic, or even insane and will leave the consideration of these everyday cases to a later chapter on mental disease.

Let us take a typical posthypnotic suggestion. The operator says to the subject in somnambulism, "Now listen carefully. After you wake up, I will show you the ace of spades from a pack of cards. When I do this, you will see a black dog come in through the door. He is a very friendly dog, so you will pet him, then you will give him a bone. He belongs to Professor Fowler so, after you have fed him, you will call Fowler on the telephone and ask him to come get the dog." The operator repeats these instructions and asks the subject if he understands them thoroughly. Then the subject is awakened.

Five minutes later the hypnotist picks up a deck of cards, selects the ace of spades, and lays it on the table in front of the subject. The latter seems wide awake in every sense of the word. He glances at the door and says, "Why, here is Fowler's dog. He looks hungry. Come on in, fellow, and have a bone." He pats the phantom dog, takes a plate from the table, puts on it an imaginary bone, and continues to fondle the dog as he eats it. Then he suddenly says, "You know, I don't believe Fowler knows where that dog is. I think I'll call him on the telephone and let him know."

So he goes to the phone and puts through his call, all the time talking in a perfectly normal manner about his garden, his auto or any other topic of conversation in which he may have been engaged. Fowler, who knows what is happening, comes over for a cup of tea. All the time he is in the room the subject keeps playing with the dog and finally says good day to the professor and his phantom pet in quite normal fashion.

Such is the typical picture of a posthypnotic suggestion. Some subjects act in a dazed condition while carrying out such orders but this is easily corrected by the suggestion that they will be wide awake and perfectly normal during the whole procedure.

Let us examine this type of suggestion more closely, far as we will see later it explains a great deal in abnormal psychology. It is a curious thing that the subject does not have to be in the deepest trance or in somnambulism to get the posthypnotic suggestion. To be sure it is much better if we start off from the deep state, but not absolutely necessary. We say to a subject in hypnotism, "After you awaken, I will tap three times on the table with my pencil. You will then have an irresistible impulse to take off your right shoe." Then we awaken him and find out that he remembers everything. Nevertheless we tap three times on the table and at once there is clear evidence of an inner conflict. He

wants to take off that shoe but has made up his mind he will not. Like one possessed of a devil, he runs his hands through his hair, shakes his head, gets up and walks around the room muttering to himself, "I won't. I won't do it." Finally the strain becomes too great and he says, "Oh! All right, then. Have it your own way." He takes off the shoe and sits down looking vastly relieved. While we can get this reaction in some subjects who do not enter somnambulism, in general they can fight off the suggestion. They still show evidence of a desire to carry out the order, but will sit still, grit their teeth, smile triumphantly and say, "No." And in most of these cases "no" means "no."

At this point, we should mention a very necessary precaution which should be taken in all this work. The subject must never leave the room until the suggestion has been removed. There are two ways of doing this. Re-hypnotize the subject and remove the suggestion, or, far easier, have him carry it out with his own consent. Simply say, "Very well. That test failed but I want to make sure that we have no trouble with it in the future. Take off your shoe and put it on again, just to clear the wires."

A doctor friend reports a very interesting case which happened to him twenty years ago. A patient came complaining that he was being followed by a big, black dog. The patient knew quite well that there was no dog around, but for all that he could not escape from the delusion that this dog was always at his heels. The doctor worked with him for a week with no success. Then the patient himself gave the answer. A stage hypnotist had been in town. He had volunteered as a subject, went into deep trance and remembered nothing of what happened until he was awakened at the end of the show. But the next day this dog delusion started and had been with him ever since.

The doctor found the answer in short order. Inquiring among his friends he found that the subject, the night of the show, had kept the house entertained by running around the stage for half an hour always pursued by a big, black dog. He was one of several subjects and this was his "stunt." He was hypnotized at once, the posthypnotic suggestion removed, and, after a couple of seances, had finally got rid of his phantom friend.

One of the real dangers of hypnotism lies right here. We may easily instill in the subject's mind some conflict, without in any way intending the same. One of our best operators reports the following case. The subject, in deep trance, was told to drink a glass of whisky. He was a prohibitionist, had never tasted liquor and refused. But the day after the trance, he told the hypnotist that, for some unknown reason, he had developed a

crazy idea of entering every saloon he passed and having a glass of whisky. The operator said nothing, re-hypnotized the subject and this time took care that he removed all posthypnotic suggestions.

The best procedure is as follows. After each trance, if any posthypnotic suggestions have been given, explain to the subject in the waking state just what has occurred. Then assure him that the suggestion in question has now been completely removed. If he has any hint of its still persisting, he is to look up the operator at once. With experience the hypnotist will never have any trouble along these lines but he must always realize that he must exercise great care.

There are two outstanding facts about these posthypnotic suggestions which link them very closely to the so-called Freudian "complex." First, these suggestions, as do those in hypnosis proper, have a very curious compulsive force. When given to a subject in somnambulism they simply "must" be carried out. The writer recalls one very interesting example while doing graduate work at Harvard. Professor William McDougall was always greatly interested in hypnotism. Under his leadership some very valuable research work was always under way.

On one occasion a group was gathered in his office. One of these graduate students was an excellent hypnotic subject and the professor hypnotized him. Before awakening the subject, McDougall said, "When I light my cigarette, you will take the ace of spades from the pack of cards on the table and hand it to me." Then he awakened the subject and later lit his cigarette.

Now it happened that this particular subject was greatly interested in hypnotism and quite familiar with its use. He at once reached over for the pack of cards, then suddenly stopped.

"Do you know," he said, "I believe that is a posthypnotic suggestion." "Very probably," McDougall replied, "what do you want to do?" "I want to give you the ace of spades." "That's right. It is a posthypnotic suggestion. What are you going to do about it?" "I won't do it." "I bet you fifty cents you will." "Taken."

Then came a very neat demonstration of this compulsive power of the suggestion. The subject was obviously in difficulties. Extremely restless, he would keep drifting toward that pack of cards, then pull himself together, and sit down only to be on his feet again in a minute's time wandering around the room in a most unhappy fashion. But he did resist and at the end of an hour and a half he collected his fifty cents, wiped his brow, and left the room.

But his troubles had only started. McDougall had purposely omitted removing the suggestion. The subject had a great deal of work to do but simply could not settle down. He was haunted by the ace of spades. Finally at four o'clock in the afternoon he gave up the struggle, returned to the building, had the janitor let him into the office, got the ace of spades, looked up the hypnotist at his home, and handed it over plus a one dollar bill.

These compulsions arising from the posthypnotic suggestion work in very curious ways. For example, we say to a subject, "When you awaken I will reach for a cigarette. You will then hand me the ash tray from the mantelpiece." When he is wide awake the operator reaches for his cigarette and the subject promptly hands him the ash tray.

"Why did you hand me that tray?" The subject looks puzzled. "Well, why not? You are smoking and have no ash tray." "It was a posthypnotic suggestion. See if you can pick out the next one and resist it."

We try again. This time we say, "When I stand up to leave the room you will hand me a coat. By accident, however, you will hand me Mr. Jones' coat, the one with the velvet collar." This time when we stand up, he immediately hands us Jones' coat, then notices his mistake and apologizes profusely. We say, "Fooled again! Another posthypnotic suggestion. See if you can catch us."

In hypnotism we then say, "When you awaken we will mention the shipping losses caused by the submarines. You will then reach for the New York Times and quote us the losses for the last four weeks."

He is awakened. Five minutes later the hypnotist mentions shipping losses. He promptly reaches for the Times and just as promptly stops.

"No, you don't. Not this time. That is a posthypnotic suggestion. I won't carry it out." "How do you know it is a posthypnotic suggestion?" "I just feel it in my bones. Sort of an urge to do it and a very uncomfortable feeling when I resist. That feeling would never come from anything else." "I bet you can't resist it." "Yes, I can. Much as I want to get my hands on that Times, the thing is not irresistible." "Very well. Look up the figures any how just to ease your mind."

This subject, highly intelligent and himself a psychologist, could pick out the curious drive to carry out the suggestion and so was able to identify it. The reader will note a point which is very important for later discussion. The subject tends to carry out these suggestions without any hesitation, especially when they fit into the social situation in which he finds himself. However,

immediately he finds out the cause of his actions, he just as quickly decides to resist. Whether this resistance will be effective depends on many factors, especially the depth of the trance and the attitude of the hypnotist. Sidis in his *Psychology of Suggestion* brings out the importance of operator attitude very clearly. He quotes from his very wide experience to show that the subject will resist a suggestion if he has the least idea that the operator does not fully expect him to comply. On the other hand, if the hypnotist makes his suggestions in a firm voice which does not express the slightest doubt as to their acceptance the order will be obeyed.

Science here tends to lean over backward in its effort to become scientific and in doing so becomes very unscientific. We cannot adopt completely the methods of the physical sciences, such as chemistry. The attitude of the experimenter matters nothing here. If he adds zinc to sulphuric acid, the result is quite clear cut and definite, whatever may be his attitude. But in suggestion this attitude is tremendously significant. A suggestion given in a voice which does not express conviction is not nearly as potent as one given with determination and force.

We do not have to experiment with hypnotism to see the truth of this statement. Any effective public speaker knows that confidence, conviction, and force are necessary to sway his audience. We will later see that a Hitler uses all the techniques of a stage hypnotist and uses them with excellent results.

So we must always bear in mind that; while psychology claims to be a science and to follow the scientific method, this personal factor introduces an element which is quite foreign to chemistry, physics or geology. The psychologist, in his determination to get standard conditions, may, in some cases, completely defeat his own ends and become a very unscientific scientist. Hypnotism supplies us with our most glaring examples and, for this reason, hypnotism is probably the most difficult of all subjects in psychology to investigate. The personality of the operator is of such great importance.

The reader must bear this constantly in mind when, in later pages, we discuss such subjects as the possible use of hypnotism for criminal ends and for the detection of crime. Here we will see that some of our very best men, such as M. H. Erickson at Eloise State Hospital, are emphatic that hypnotism cannot be used in either situation. But we will also see that others of equal reputation, as W. R. Wells of Syracuse University or L. W. Rowland of University of Tulsa, are just as emphatic that it can. This presents a very confusing picture to the average reader and tends to discredit this branch of psychology. Actually such

results must be expected until we find some way of evaluating the personal factors of both the hypnotist and the subject.

There is a second characteristic of the posthypnotic suggestion which is of the very greatest importance. This we term rationalization. The subject tends to rationalize, to find excuses for his actions and, strange to say, while these excuses may be utterly false, the subject tends to believe them.

For example, the writer says to a very good somnambulist, "After you awaken I will sit down by the piano. You will then go to the bookshelves, select the third book from the left hand side, second row from the top, turn to page 127 and read the first paragraph." The subject remembers nothing of what the operator has said, yet, when he seats himself by the piano, the subject wanders over to the library, selects the proper book, opens to page 127 and starts reading. It happens to be a textbook on biology.

The operator interrupts. "Why are you reading that stuff to me?" "Well, yesterday I had an argument with Professor Smith about the action of the chromosomes in reduction-division, and I thought you could help me out." The subject was a medical student, the story fitted together neatly, and he evidently believed it-only it was quite untrue. He had not seen Professor Smith for a week and had had no argument about the action of the chromosomes. This case is typical. The subject always finds an excuse to justify his conduct, and this conduct may be pretty hard to justify, as in the following case.

The operator hypnotizes a subject and tells him that when the cuckoo clock strikes he will walk up to Mr. White, put a lamp shade on his head, kneel on the floor in front of him and "cuckoo" three times. Mr. White was not the type on whom one played practical jokes, in fact, he was a morose, nonhumorous sort of individual who would fit very badly in such a picture. Yet, when the cuckoo clock struck, the subject carried out the suggestion to the letter.

"What in the world are you doing?" he was asked. "Well, I'll tell you. It sounds queer but it's just a little experiment in psychology. I've been reading on the psychology of humor and I thought I'd see how you folks reacted to a joke that was in very bad taste. Please pardon me, Mr. White, no offence intended whatsoever," and the subject sat down without the slightest realization of having acted under posthypnotic compulsion.

Next came a very curious situation. Mr. White was a lawyer and interested in the whole problem of hypnotism in crime. "Do you think hypnotism is dangerous?" he asked the subject. "I'm sorry but I know nothing about

hypnotism," came the puzzled reply. "But you were hypnotized only five minutes ago." "Now you're having your little joke, but I have never been hypnotized in all my life." "I certainly saw you in hypnotism right in this room not five minutes back." "You certainly saw no such thing. I know nothing about hypnotism, never have been hypnotized, and know that no one could put me to sleep."

It is a very curious thing that, with the use of the posthypnotic suggestion, we can remove from the subject all knowledge of ever being in the trance. We merely assure him in hypnotism, "In future you will have no memory of ever being asleep. You will remember nothing about hypnotism but will insist that you have never been hypnotized in all your life."

After such a suggestion has been repeated a few times the subject has no knowledge of going into trance. We seat ourselves opposite him at the table. He is hypnotized and we talk along for half an hour. Then we awaken him and he at once picks up the conversation where he left off before being hypnotized. We ask him about the trance and he looks puzzled. He is quite sure that we have been talking quietly in our chairs ever since he entered the room. When he is told that he was in the trance, and is a good subject, he is inclined to think that we are trying to play a very poor joke on him. He reacts in exactly the same way as would the reader if his doctor were suddenly to enter the room and tell him that for the last hour he had been walking in his sleep. The whole thing doesn't make sense and the subject says so.

We can go even farther with the posthypnotic suggestion. Not only can we, with its aid, remove all knowledge from the subject of ever having been hypnotized; we can make it impossible for anyone beside the operator to hypnotize him at any future date. This again is the result of suggestion in the hypnotic trance. After such a suggestion the subject, no matter how good a somnambulist he may have been, becomes the most obstinate of all people when we try to get the trance.

In the waking state he not only denies that he has ever been hypnotized but is very unwilling for anyone to try and induce the trance. He claims that hypnotism is something he never liked, that he thinks the whole thing silly and does not wish to make a fool of himself. If we press him, he will consent very reluctantly to allow someone present to try, but the operator in question can get nowhere. The subject is definitely hostile and merely goes through the motions of co-operation but nothing more.

Finally, to complete this curious picture we use the posthypnotic suggestion to induce hypnotism, after the first trance. We say to the subject, "Listen carefully. In future, whenever I take the lobe of my left ear in my left hand and pull it three times, you will at once go sound asleep." This suggestion may have to be repeated several times, depending on the subject, but with a little practice it will work. To hypnotize the patient, the operator now merely strokes his left ear three times and the subject is in trance. Needless to say, we may use any cue, as long as we make it clear to the subject what this cue is to be. We may say to him, "You are asleep" or may use any other phrase as "Mary had a little lamb," if we wish it to be verbal, while the range of visual cues is unlimited.

The resulting picture of hypnotism is something with which the reader will be quite unfamiliar. We will see later that hypnotism has nothing to do with sleep, a good subject may be in deepest trance yet behave for all the world as if he were wide awake. For example, the writer has used a somnambulist as his bridge partner for an evening, had the subject play every other hand in the trance state and no one in the room was any the wiser. Control of the trance was exercised by means of posthypnotic cues, in this case scratching the left ear or scratching the right ear to hypnotize or awaken the subject.

This shift from waking to hypnotic states can be extremely quick and subtle. The writer recently saw a very beautiful demonstration. Another operator was demonstrating with a very good subject, hypnotizing and awakening him, with the writer trying to detect the change. It turned out to be quite impossible, so well concealed were the cues and so quickly did the change occur. The only way the writer could decide was to ask the subject, quite frankly, "Are you asleep?" and take his word. In the last analysis it would have been easy to check up by using some test, such as anaesthesia, but under the circumstances this was not necessary. The subject was quite honest and enjoyed the game as much as anyone. This certainly is a very different picture of hypnotism from that which exists in the mind of the average layman. It is this very confusing, one might almost say, deceptive aspect of hypnotism to which we later devote several chapters.

We have noted the main points of interest in the posthypnotic suggestion. Anything which we can get in hypnotism we can get by posthypnotic means. We pointed out the weird compulsive power which these delayed suggestions have, especially when the subject does not realize the cause of his actions; also that the subject will tend to rationalize, to give reasons for his actions. These reasons he believes just as much as if they were genuine.

Then we have the curious fact that with the posthypnotic suggestion we can remove all knowledge of ever having been hypnotized and render it impossible for anyone but the operator to use hypnotism at any future date. Finally we can use posthypnotic cues to aid in hypnotizing at a future date. These can be employed so cleverly that an experienced operator cannot detect their use, cannot even detect, without tests, that the subject is in the trance.

There are a few other questions which seem of interest to the public. How long will the posthypnotic suggestion last? Frankly we have no idea. Liebeault reports a case in which a very complicated suggestion was carried out after a year. The writer recently ran across a case where the posthypnotic suggestion seemed to be fairly strong after twenty years.

During the last war he was interested in the study of hypnotism and was far more inclined to go in for "stunts" in those early days. He had a favorite trick with one subject. He would say, "Watch the front." Whereupon the subject would stand up and shout, "Call out the guard. Here comes Paul Revere."

It happened that recently the operator met this subject and in the course of the conversation suddenly said, "Watch the front." The subject looked puzzled, then said, "Call out the guard. Paul Revere is coming." Then he immediately looked even more puzzled and added, "I wonder why I said that. Somehow something you said recalls the last war and all the muck in the trenches. I never recalled the whole thing quite so vividly before."

work after a day at the office. We try the usual hypnotic suggestions with considerable success, then clinch the matter with some very specific suggestions which are to take the form of autosuggestion.

We say to him, "In the evening when you wish to concentrate, you will prepare all your work so that you will not have to leave your room. You will then put your watch on the table, take a card and print on it 'Concentrate until 10:30.' You will place this card beside the watch. From then on you will have no difficulty whatsoever in attending to your work. Everything will leave your mind except the determination to work hard until 10:30 or whatever time you may print on the card." This little trick seems to help very much in securing the much desired ability to concentrate.

Here, of course, arises a very neat point. Is this actually autosuggestion or posthypnotic suggestion? In this book we will side-step the issue by saying that the question is only of theoretical interest. We could argue indefinitely over many such problems, as, for instance, is all suggestion autosuggestion or is all

suggestion hetero-suggestion; that is, suggestion with the aid of an operator, real or imagined? The reader may feel he has the answer but we can assure him that much ink has been shed on this issue and it is still an open question. For our purposes we are entitled to avoid such problems on the plea that we simply go "round and round the mulberry bush." If the professional psychologist can not find the answer, we can not hope to do so.

As with the hallucination, we can obtain all other hypnotic phenomena by means of autosuggestion and by using the same technique. Paralyzes, anaesthesias, even control of the heart rate lend themselves to this attack. But its real practical use would be in giving man command over himself, over his powers of concentration, and over his personality, so that he could rebuild himself along the lines of success and happiness. There may be here a great future for autosuggestion.

However, all autosuggestion need not be initiated by hypnotism. Coue was not interested in this approach and Baudouin outlines in his book very carefully the ordinary procedure. This is literally to give to yourself, when relaxed, the desired suggestions. Coue's famous formula, "Every day and in every way I'm getting better and better," was quite the rage a few years ago. Undoubtedly such a general formula can be of great help in many cases.

Coue in his writings on autosuggestion stresses the importance of imagination. If we can imagine a thing vividly enough, then it's true. This point is very open to argument. We must realize that in autosuggestion, as in hypnotism, people probably vary greatly in their openness to such suggestions. Success will not be uniform with any technique, some people will get results, others will not.

Nevertheless, the writer has found that the following procedure seems to be the one which is easiest and which can produce most of the things we get in hypnotism. The subject should relax on a couch or in a chair, close his eyes, and "Talk sleep" to himself. With a little practice he will recognize the coming of hypnosis, that "faraway" feeling accompanied by numbness in the limbs and a general laziness.

When this stage arrives the subject should then shift over to active suggestion, but without awakening himself. He must suggest to himself that, let us say, all sensation has gone out of his right arm or that he is listening to a symphony. The technique of autosuggestion is difficult, but it can be mastered. Once the subject has obtained this mastery he will find that not only can he produce, say, hallucinations in the trance itself but can actually suggest posthypnotic hallucinations to himself. It does sound weird but it can be done.

For example, the writer while in military hospital had ample time to experiment with autosuggestion. He was able to suggest to himself that he would wake up at 2 A.M. and hear a symphony. Even more interesting he could suggest that he would awaken and hear spiritistic raps. Sure enough at 2 a.m. he was wide awake listening to very distinct raps from the spirit world. Then came a very interesting experience, almost a state of divided consciousness. He heard the raps distinctly but knew they were the results of autosuggestion. He was even able to make a "mental request" that they group themselves in twos and threes and the spirits obliged. We will see later that hypnotism provides us with a key to explain most psychic phenomena, when these are genuine and not the result of magician's tricks. Autosuggestion gives us an excellent device with which to study many strange things. The writer had a pet polar bear which he was able to call up merely by counting to five. This animal would parade around the hospital ward in most convincing fashion, over and under the beds, kiss the nurses and bite the doctors. It was very curious to note how obedient he was to "mental" commands, even jumping out of a three story window on demand.

But there is a certain menace to autosuggestion which this phantom bear illustrated. He became so very familiar that he refused to go away. He would turn up in the most unexpected places and without being sent for. The writer was playing bridge one evening and almost threw his hostess into hysterics by suddenly remarking, "There's that damn bear again. I wish someone would shoot the beast." He also had a nasty habit of turning up in dark corners at night, all very well when one realized he was just made of ghost-stuff but rather hard on one's nerves for all that. So he was banished and told never to return, but it was fully a month before the writer felt quite sure that his ghostly form would not be grinning at him over the foot of his bed during a thunderstorm.

There is a real danger here in connection with autosuggestion-a much greater menace than can ever arise from straight hypnotism. In the latter, the situation is always in skilled hands. Any bad effects can be remedied on the spot once and for all, but this is not so with autosuggestion. The subject is his own doctor, which has all the dangers this would imply if he were allowed the run of a drugstore to treat his ills without previous training. It is very hard for the average man himself to recognize trouble which may be the result of autosuggestion and just as difficult for him to treat it.

The writer recalls the case of a very gifted lady who became interested in spiritism. As we will see, the spiritistic phenomena are largely due to autosuggestion. She became so completely deranged through talking to the spirits-St. Augustine in this case-that she had to retire to a sanatorium. She has since regained a certain amount of her former mental balance but, left to

herself, she could never have handled the situation. This was largely because she did not realize how very near she was to complete insanity. St. Augustine was a very real person, she valued his friendship immensely and resisted treatment until the supposed spirit was ousted by hypnotism. With this aid she recovered sanity enough to see how serious her situation was and from then on could help herself.

The writer cannot become very enthusiastic about autosuggestion. We will see in later pages that it may easily result in dissociation. In theory the subject should be able to guide his own treatment and become the master of his own personality. But it may just as readily encourage a tendency to dissociation which is latent in so many people, and with this lead to the development of neurotic traits which are far from desirable. The reader will do well to read through the next two chapters before he passes judgment on this statement. As yet we have not talked enough on the theory of hypnotism to give us a proper basis for discussion.

Anything which occurs in hypnotism or the posthypnotic suggestion we can get in autosuggestion. Finally any of these hypnotic phenomena may occur in everyday life, when we refer to the individual as "queer," an hysteric, a neurotic, even as insane. For this reason hypnotism is of very great importance, and we refer to it as the "laboratory" of abnormal psychology. It provides us with a key whereby we can understand the insane, and the neurotic.

For instance, the operator can suggest to a subject that, on awakening, he will have an irresistible impulse to kill every cat he sees, telling him in hypnotism that cats spread bubonic plague through their fleas and that by killing cats he will confer a great service on humanity. When the subject awakens he may very easily have an urge to kill any cat he meets. Asked for a reason he will insist that they are a menace to the country, that they spread the plague. Yet he will have no idea of where this idea comes from.

Should we run across such a case in everyday life we would say that he is suffering from a "compulsion." Actually we do have many examples of these compulsions as in the case of the kleptomaniac who must steal even worthless objects, the pyromaniac who must set fires, and many others. Moreover, we will point out in later pages that the kleptomaniac, and the pyromaniac are really working under a posthypnotic suggestion -minus the hypnotist. They act in exactly the same way as if they had been hypnotized and given their instructions in the trance. As a matter of fact we will see that they have been hypnotized at some time in their life and have been given the suggestion in question. The fact that no hypnotist was involved, that they may never have

seen a hypnotist in all their life, we will see, has no bearing whatsoever on the case.

Similarly hypnotism gives us the explanation for many other types of mental disorder. The man who has a fear of cats, a phobia as it is called, acts exactly as if he had received the suggestion in hypnotism. And he did-only it was not labelled hypnotism. Likewise we will point out that an understanding of hypnotism helps us to understand "Napoleon" in your nearest state hospital for mental diseases. We can procure him in any psychological laboratory, and in so doing understand how he "gets that way" in normal life. As a matter of fact, the writer can see no difference between the Freudian complex and the posthypnotic suggestion. We will be in a better position to understand that statement after the next two chapters, but we would like to re-emphasize the thread of continuity. Hypnotism, posthypnotic suggestion, autosuggestion; what we get in one we can get in the other. And the phenomena we obtain in any of them occur in everyday life, when we refer to them as various mental disorders. But actually we can best understand them as forms of the posthypnotic suggestion or autosuggestion. This is why our subject is so very important.

Just a final word. Hypnotism may explain many forms of insanity. That does not mean to say that hypnotism can cure them. In some cases it may help, but the fact is that, while we may know why Mr. Smith is in hospital and thinks he is Napoleon, this does not guarantee a cure by hypnotism or any other means.

Chapter 4

SOME CURIOUS STATES IN EVERYDAY LIFE WHICH ARE DUE TO HYPNOTISM

LET us now examine some of those states which are closely related to hypnotism, for in so doing we will not only understand the underlying cause of these related phenomena but will obtain a fuller picture of hypnotism itself. Take, for instance, automatic writing as a first example. The reader is probably familiar with this curious state, wherein the subject's hand writes "automatically" with no reference to what is in the conscious mind.

This may take many forms. The subject may lose consciousness completely while the hand writes, but in general he retains his full conscious faculties. He may be able to interrupt the hand but again the writing hand is generally a law unto itself. It scribbles along until it has finished, perhaps in five minutes, perhaps in fifty, then stops and is again a part of the normal body pattern. The usual picture is somewhat as follows. The subject relaxes in a chair with a

pencil in his hand, a paper on the desk. After one or two minutes the hand makes a few convulsive movements, then starts writing. The letters are generally large and ill-formed, but in some cases as in that of Stainton Moses the writing may be beautiful. The hand guides itself largely by touch and writes until it comes to the end of the page, then pauses with pencil uplifted awaiting a fresh sheet of paper. The subject himself may supply this with his other hand, or, if in trance, his associate will put the fresh sheets in place.

The strange thing about this whole procedure is that the subject has no control over the hand in question. He has not the slightest idea as to what it will next write and is often badly embarrassed when the hand makes a "remark," so to speak, which should not occur in polite society. We can screen the writing hand from the subject's sight, passing it through a cloth curtain. Then the subject can quietly read a magazine while we experiment with the hand. It will write along, in no way disturbing the subject and in no way disturbed by what he may be reading or thinking.

We stick a pin in the hand, but the subject does not pay the least attention. But the hand promptly writes "stop it," "cut it out," or some such phrase. The writer had an ex-army friend on whom he tried this little trick. Everything was going along in fine fashion until we pricked the hand with a needle, whereupon the hand burst into a stream of cuss words that would have made any regimental sergeant-major blush with shame. For full five minutes it told the operator just where he could go and how to get there. All this time the subject was reading *Oil for the Lamps of China* without the slightest idea that his good right arm was fighting a private war.

We refer to automatic writing as an example of dissociation. The arm in question is dissociated, is cut off from the rest of the body. This must mean that those parts of the brain which control the arm are for the time being disconnected with those parts responsible for normal waking consciousness, which could be explained in terms of the synapse theory we have already mentioned. At any rate, the arm acts by itself and seems to be an outlet by which the unconscious mind can express itself without completely unseating the conscious mind. Certain we are that this hand will often mention facts which are quite unknown to the subject.

This often has great use in medicine. We take a subject, aged twenty-five, who is a victim of the hand-washing mania; he simply must wash his hands forty times a day. He also does automatic writing, and as we can get no real information from him which might explain his compulsion to hand washing, we ask the hand itself in automatic writing.

"Why do you have this compulsion to wash?" "I don't know."

"Now, think. When did it first make its appearance?" "Sometime when I was about eleven or twelve."

"That is not close enough. You can do a lot better. Now, think. When? When and why?"

"Good heavens. Now I know," and the hand scribbles out the story.

It appears that, as a boy, he had a dog of which he was very fond. On one occasion this dog fell into an open cesspool, and was in danger of drowning. The boy had a friend hold his legs, then reached down and rescued the dog, getting himself filthy in the process. Worse than this he also collected a sound thrashing from his father, who told him that he had probably contracted various diseases, including syphilis. On this basis was built up the morbid compulsion to wash his hands. We will see later that the most important step in curing many such conditions is that of learning the original cause.

We can find examples of these automatic movements in much simpler form than those involved in automatic writing. Most of the readers have probably been present at a "table tilting seance," wherein the table is in contact with the spirit world and raps out its messages to friends on this side of the border. Science now generally concedes that the movements of the table are due to automatic-and quite unintentional-pushes and pulls on the part of the "sitter." The fact that these always protest that they have exerted no conscious effort means nothing, for we get these automatic movements in far more elaborate form with automatic writing and here the subject may be totally ignorant of what his hand is doing. Moreover, the plea that the table sometimes raps out information of which no one present is conscious also means nothing. These automatic movements, as coming from the unconscious, would have much material at their disposal of which the normal mind would be in ignorance. It is difficult for the average reader to grasp this possibility, but we will refer him to the cases of multiple personality which we discuss in later pages of this chapter. This weird condition probably gives the most convincing illustrations which psychology can muster.

In this same class, of course, comes work with the ouija board, an instrument with which we are all familiar. Here the automatic and wholly unconscious movements of the sitter guide the little table over the board as it spells out answers to the various questions. It is interesting to note here that some people can work the ouija board with great success obtaining from it all kinds of information of which they have no knowledge. It comes from the unconscious. Others can get nothing at all from the board. It simply refuses to budge. This is

in strict accord with what we would expect if susceptibility to these automatic movements had anything to do with a similar openness to hypnotic suggestion.

And it has, very definitely. The writer, in his experience, has met many people who, as a pastime, practiced automatic writing. Whenever he has tried hypnotism with these people, they always turned out to be excellent subjects. And we find the same with people who can get good results from the ouija board. As a matter of fact an experienced operator has to waste very little time looking for subjects. A little inquiry will show that in any group there are people who consistently walk or talk in their sleep, who have practiced automatic writing, who like to work with the ouija board or who have success as "crystal gazers." With such people the operator can proceed under the almost certain assumption that he is dealing with good hypnotic subjects.

He is dealing with a person who is highly suggestible and it would appear that most of these automatic movements, so often associated with spiritism are largely the result of autosuggestion. The subject becomes interested in spiritism, and has an intense desire to get some of the "mediumistic" phenomena in himself. So he seats himself in front of paper, with a pencil in his hand, relaxes and hopes for results. This is simply one form of autosuggestion and if the individual is a good hypnotic subject, he gets the results he wishes. If not, he becomes discouraged and concludes that the whole thing is a fraud. But there is nothing supernatural or supernormal about automatic writing or the ouija board.

The results depend on dissociation produced by suggestion. We will see later that while dissociation may not be the whole explanation of hypnotism, the fact remains that we almost never get hypnotism without dissociation. They are psychological Siamese twins born of the same parent, suggestion, and both dependent on the suggestibility of the individual in question. That analogy is not quite correct, but it gives a pretty good picture for all that.

Then again we see the relationship between these states and hypnotism in the fact that we can easily obtain them in most good hypnotic subjects by means of suggestion in the trance. We make use of the posthypnotic suggestion, saying to the subject, "In the future whenever you wish to do automatic writing, you will sit down before a sheet of blank paper, take a pencil in your hand, and relax. You will then recite the first five letters of the alphabet at the end of which your hand will begin to write." It may be necessary to repeat these suggestions in following seances, even to give some very specific suggestion as "your hand will write `Mary had a little lamb'" just by way of getting the subject into the knack of the thing. But with persistence the somnambulist can generally

succeed with automatic writing while the automatic writer will almost always become a somnambulist.

Another curious phenomenon we see in everyday life is "crystal gazing." Here again the unconscious seems near the surface and in this case vision is used as the outlet. Also it can be obtained as a result of posthypnotic suggestion and very probably most crystal gazers are good hypnotic subjects. The writer has had too little experience here to say but feels certain that such is the case. By the way, we do not need a crystal for crystal gazing. A glass of water is just as good especially if we have a point of concentration on the surface, such as a small drop of oil. Even this is unnecessary. And the technique for developing the "power" is exactly the same as is that in the case of automatic writing. Sit down, relax, gaze into the water, and hope for results, all of which is a perfect setting for autosuggestion. The process can be made much shorter by using the posthypnotic suggestion, showing again the close tie-up between the hypnotic states and these odd conditions of everyday life. Moreover, the "visions" we get in crystal gazing are the same as the revelations through automatic writing. Material drawn from the unconscious mind, sometimes dealing with events of which the subject has no conscious knowledge. The reservoir is the same but the "pipe line" leads in different directions. In automatic writing to the hand, in crystal gazing to the eyes, but nothing supernatural in either case. A very excellent and authoritative book on this subject is that by T. Besterman.

All these conditions illustrate a very important principle of which we will later deal at greater length. Certain experiences of childhood and later life are "repressed," are forced out of consciousness because of the fact that they are very unpleasant. These are completely forgotten so far as our everyday life is concerned, but while "down" they are not "out." As a matter of fact, they may cause a great deal of trouble, being the origin of all sorts of mental disorders.

"Shell shock" is a case in point. It really should be called "war neurosis" since it has nothing to do with shells necessarily, but is a reaction to fear. In general, it will be found that these shell shock cases have a period of amnesia, a memory blank, for some very terrible experience. They remember nothing about it, yet for purposes of a cure it is necessary that it be restored to consciousness. Hypnotism is excellent, or any other trick, which taps the unconscious, including crystal gazing.

The writer recalls one such case in the last war. The patient was suffering from a violent tremor all over his body, so violent that he could not walk or even feed himself. The doctor, thinking that he would try hypnotism, began explaining to the subject just what he would want. In the course of the

conversation the subject volunteered the information that he had once been very much interested in crystal gazing and had been quite successful in obtaining visions. This seemed a good lead so the doctor proposed he try it and report his experiences.

The patient did so, and saw in the glass the whole terrible experience of a bombing attack in which most of his company had been killed and he himself had bombed three of the enemy in a dugout under very harrowing circumstances. Yet previous to this vision he would not recall any details of the attack, his mind being a complete blank for a period of roughly twentyfour hours.

Another type of automatic activity which is not so generally known but which further illustrates our point is the phenomenon of "shell hearing." We are all familiar with the fact that if we cover an ear with a shell we get a peculiar confused roaring. In some people this roaring refines itself into voices and these become a series of auditory hallucinations. Moreover, we do not need the classic shell. A tea cup held over the ear does just as well and as usual the voices heard tell of events with which the subject is already familiar or which are in his unconscious mind.

Both automatic writing and shell hearing naturally lend themselves to another line of activity. The writer or listener is able to express his own philosophy of life in such a way that he may easily rank himself as a prophet. For some strange reason the average man is very much impressed with these automatic phenomena both in others and in himself. Consequently if he has a vision, receives a message by automatic writing or hears "voices" with or without the "shell," he is very liable to regard them as direct from the supernatural and act as if he were receiving guidance from the deity.

All the aspects of automatic phenomena are summed up best in our final example, automatic speech, speaking with tongues or glossolalia. The best book on the subject is that by G. B. Cutten. We are all familiar with the Bible story of Pentecost day, when the tongues of fire descended on the disciples' heads and they began talking in "tongues." Whether or not this original experience involved actual foreign languages in which they were to preach the reader may judge for himself. Suffice it for our purposes to say that fifty years later, in the days of St. Paul, the "gift of tongues" was understood by no one. St. Paul himself advises his followers to expend their energies along other lines since no person can understand what they are talking about. Since his time there has not been a case, acceptable to psychology, wherein an individual has been able to speak any language without first going through the process of

learning the same. To be sure, we have heard of many such cases in popular literature, even have certain religious groups who insist that their members talk all sorts of foreign languages with no previous training, but the psychologist would still say "unproven."

What happens here is exactly the same sort of thing we have already seen in automatic writing. A case of dissociation, only here it is the muscles of the throat which are no longer under control of the normal waking personality. The individual starts talking just as the automatic writer writes, the throat muscles appearing, to run themselves without any conscious control from the person in question. The words the subject utters may be utterly unintelligible, a language of his own, a "divine language" as it is sometimes called or he may speak his own native tongue, expressing what is in the unconscious mind. In this latter case we again have an analogy from automatic writing. The thoughts expressed may be utterly trivial, even foolish, or they may represent the working of a profound, even artistic mind. It might be well here to introduce a case which achieved considerable fame a few years back, fame which was justly earned, to illustrate some points.

We refer to the case of Patience Worth. Here we have a lady, Mrs. Curran in everyday life, who lived the healthy normal existence of millions of other American women. She had a high school education, had early hoped to become a singer or an artist of some description and again, like millions of others, had been forced to realize that she simply did not have the ability. Fortunately she had the good sense to accept this fact, a point of view which all too many humans never will realize.

But, strange to say, Mrs. Curran ended up as an artist, one of the best; yet not Mrs. Curran, but the unconscious of Mrs. Curran, Patience Worth. This curious situation illustrates very nicely how these automatic phenomena merge into one another just as do the various stages of hypnotism. Table tilting and the ouija board are more or less crude manifestations of the unconscious at work, an outcropping which is not too convincing and is purely temporary, but in the case of Patience Worth the unconscious has assumed the role of a separate and distinct personality, one which is in some respects far superior in ability to the original. Here we are verging on multiple personality, which we will discuss very shortly.

This organized unconscious of Mrs. Curran gave itself the name of Patience Worth and claimed to be the spirit of an English girl who had lived in the reign of Queen Elizabeth, during the latter half of the sixteenth century. Moreover, while Mrs. Curran had no particular artistic ability, Patience Worth was an

author of the highest grade, writing several books and publishing many poems which are admitted good by our best critics. And, strange as it may seem, these books contain a much higher percentage of sixteenth century English than almost any other novel or poem written in America! If the reader wishes a thorough and scientific discussion of this case we refer him to the book, *The Case of Patience Worth*, by W. F. Prince.

While science will not accept the claim that a spirit from past years occupies the body of Mrs. Curran, science will admit that the case is very complex, showing to a very high degree that ingenuity of the unconscious so evident in hypnotism. This unconscious, having assumed the title Patience Worth, has been remarkably consistent, as shown by the fact that she always uses a preponderance of old English words in all her writings. We leave the reader the task of reviewing the evidence and deciding for himself whether or not she has proved her point.

This particular case illustrates another very interesting phase of automatic activity. With practice it sometimes becomes far more efficient, the unconscious itself becoming better organized. Patience Worth began her communications with the planchette, a crude form of ouija board. But this was a very slow and clumsy method for such a brilliant personality so she "graduated" to automatic writing. Even this proved too tedious so she now does her work by automatic speech. Moreover, she has the most remarkable control over this speech. She, Mrs. Curran, sits down and relaxes. Immediately Patience Worth comes to the surface and begins work on her latest novel or book of poems, Mrs. Curran being conscious all the time and literally attending to her knitting. Should the phone ring Mrs. Curran immediately answers it, takes over control of her throat and talks as Mrs. Curran. A minute later Patience Worth is dictating her book! This evidence of unconscious ability is by no means as rare as many of the readers may think. We find it in many spirit mediums, a group whom we discuss later in this chapter. And, as would naturally be expected, we find it in certain hypnotic subjects when we take the trouble to look, sometimes the evidence of artistic ability approaching genius. After all, that is not so unreasonable as it may sound. We have repeatedly said that the subject in hypnotism is not "asleep." He is very much awake, but a different personality. We know that a great deal of genius in humanity is held down by social pressure; the individual does not dare give vent to his artistic talents for fear of making a fool of himself. But we also know that hypnotism may lift these "inhibitions," as we term them, in some cases freeing the subject in the sense that he cares very little for the opinions of his social group. Under these circumstances genius, if it exists, might have the chance of pushing to the

fore. For instance, Coleridge claimed to have written *Kubla Khan* during his sleep, which was very probably a state of unconscious activity.

As we mentioned before, these automatic phenomena tend to merge into one another. Patience Worth, as the unconscious of Mrs. Curran, is so well organized that we may regard her as a separate personality, which brings us to the most curious of all these automatic, these semi-hypnotic conditions, that of multiple personality.

And with this field of multiple personality we find a gradual increase in complexity. The most simple cases we refer to as the fugue or flight. William James, reported on such cases, among the earliest in the literature. A man named Ansel Bourne lived in Boston. Suddenly he vanished and after careful search was given up as lost. Six months later a man in Philadelphia, who had been running a grocery store suddenly "woke up," gave his name as Ansel Bourne and asked to know what he was doing so far away from home. Apparently he had run his grocery business fairly well for six months while in this "unconscious" condition, his "secondary" personality taking charge and giving the appearance of normalcy. Such a case is very simple. From here we can go to the type of case represented by Rou. Here the reader will see the very close resemblance between this particular type and somnambulism as seen in sleep walking. We have already pointed out the very close relationship between somnambulism and hypnotism. Rou was a poor boy of Paris, France, who lived with his mother, a small storekeeper. But Rou was in the habit of frequenting saloons where he was fascinated by the tales of sailors.

He longed to become a sailor himself and escape from his uninteresting world. Then something very curious began to happen. He would suddenly lose consciousness and start for the seacoast, doing all sorts of odd jobs to keep himself alive and fit. His unconscious had taken over control and decided to become a sailor. Then at the end of a day, a week, or a month, he would suddenly come to himself or "wake up" without the slightest knowledge of where he was or how he got there. He would be sent back to Paris and would be quite normal for a period, then once again he would have a fugue, would walk in his sleep, and start out for the coast. This case we will see is more complex than that of Ansel Bourne in that the subject had recurrent attacks.

We could devote many pages to other cases by way of showing their growing complexity but will proceed at once to a very interesting and complex example, which was carefully studied by Professor Morton Prince of Harvard. We refer to the famous Beauchamp case of multiple personality.

Miss Beauchamp was a young lady, a nurse in training at a Boston Hospital, when Dr. Prince was called in to take over the case because of very peculiar actions on the part of the lady in question. After long and careful study he made a very interesting discovery. Her body contained no less than four distinct personalities. When he first met her she was under the control of the personality he later called B1, or the Angel. As such, she was a very sickly, nervous, highly religious, overconscientious type, easily tired and always worrying over the sins of humanity and her own lost state.

Then he made a further discovery.. Another personality made its appearance, BIII, Sally, or the Imp. Sally was a totally different proposition. She was a girl of eight or nine, absolutely irresponsible, with tireless energy and apparently no conscience whatsoever. Sally was always present but generally as an unconscious personality, "squeezed" by the Angel, as she said. She knew everything that was going on and thoroughly hated the other personality which insisted on taking the body to church, or keeping it quietly in its room while she, Sally, could think of far more interesting things to do. This was because Sally could not generally get control of the body but as the condition became worse, as the dissociation became more marked, Sally found it easier and easier to take over charge and then, ah then, she had a delicious revenge.

The Angel loathed even the appearance of sin. Sally was not by any means so conscientious. One of her delights was to take the body out on a wild "party" including beer and young men. Then to suddenly withdraw, leave the body to the Angel and watch her squirm as she got herself back to the hospital. This case occurred in the early 1900's, when the morals of the country would make such a situation even worse than today.

Then again, Sally was tireless, the Angel fatigued very easily. Sally could go for a five mile walk and end fresh as a daisy. Five hundred yards would leave the Angel exhausted, so Sally would get control of the body, take it on a particularly long walk and then withdraw, enjoying the tortures which the Angel suffered in getting herself back home again.

The Angel also prided herself on being very neat, both as to clothes and to room. This gave Sally a glorious opening. When particularly displeased with the Angel, she would take over control of the body and then wreck the room, turning the drawers inside out and piling everything in a heap in the middle of the floor. All these little tricks Sally used as a club on the Angel. In other words, "don't take the body to church; or else-. Do as I say, and I'll leave you in relative peace, be obstinate and I'll `turn on the heat'." The reader will please note that this is not a case taken from a novel, as Dr. Jekyll and Mr. Hyde, but

is an actual situation reported by one of our ablest psychiatrists. If the reader wishes further details than those we give, we refer him to Dr. Prince's own book, *The Dissociation of a Personality*.

Dr. Prince then discovered that a third personality was appearing; namely, BIV or the Woman. It is curious to note that neither the Angel nor the Woman were actually conscious of Sally's thoughts and actions. Sally communicated with them or rather delivered her ultimatums by letter and Prince explained what it was all about. Neither were the Woman nor the Angel conscious of each other. But Sally, from her position, was aware of both thoughts and actions of the other two. As we said before, these cases of multiple personality can be very complex. The Woman had a different personality from either of the others. She was headstrong, vain and spiteful; moreover, she also insisted on taking the body to such places as good stores and good concerts, which Sally loathed. So Sally started a campaign against this new menace, but discovered that the Woman and the Angel were quite different people to handle. She tried her tricks but they did not work. She made a jumble sale of the Woman's clothes, and piled them on the floor. The Woman promptly took Sally's toys and threw them into the fire. The conflict was short and sharp, ending in an armistice with both sides in a position of armed neutrality. Unfortunately they both occupied the same body, so there were definite limits to which either could go. Sally would cheerfully have cut off the Woman's nose but she would have been literally spiting her own face. It happened to be her nose as well.

Then Dr. Prince made another discovery, and here we find again the tie-up between hypnotism and these various states of dissociation. If he hypnotized either B1, the Angel, or BIV, the Woman, he got a new personality, BII, which had all the memories of both. Moreover, this new individual was a much more evenly balanced person than the other two, more of a real woman. This led Prince to conclude that this was the real Miss Beauchamp, that the Angel and the Woman were only halves, so to speak, of BII.

Yet whenever he awakened BII, he always got BI or BIV. However, with persistence and by insisting in hypnotism that BII should awaken with the memories of both the Angel and the Woman he finally succeeded in awakening BII as the real Miss Beauchamp. And Sally? She could not be included in the personality synthesis. By means of hypnotism she was robbed of her power to control the body and "squeezed" back into her corner until she would no longer trouble the real Miss Beauchamp. That involves a very neat question in ethics. Sally was a real personality. To what extent was Prince guilty of psychological murder, so to speak?

We would wish to make a point before we proceed, since we wish later to show more clearly how and why hypnotism is of such use in these cases; in reality they are caused by a form of hypnotism in the first place! We will see that emotional shock produces exactly the same results as hypnotism, that hypnotism may in reality be a form of emotional shock. We are not clear on this point, but we do know that shock gives us all the phenomena of hypnotism and vice versa. If we read over the Beauchamp case or most other such cases we will see that the condition has been caused by some severe emotional strain. What actually happened in the Beauchamp case appears to have been somewhat as follows. A very severe period of fear in childhood ending about the age of seven in a bad fright received from the father. This "split" the personality into the Sally, or BIII and the BII parts. Sally remained the childish creature she was at that time as a "co-conscious" personality, while BII continued her development. Then around the age of eighteen came another great shock, this time in connection with her love life, when BII split into BI, the Angel, and BIV, the Woman.

The reader will recall that BI or BIV hypnotized gave BII. The cure consisted of binding these personalities together again by means of hypnotism in the BII stage and then in being able to make this personality strong enough so that it would still remain BII on awakening and not return to BI or BIV. But BIII or Sally had had too long and independent an existence.

It proved impossible to unite her personality with that of BII, so the only way of solving this problem was to repress her completely. Somewhat of a Chinese puzzle but a very interesting study accepted as true in all psychological circles.

When Dr. Morton Prince was investigating the Beauchamp case, a namesake of his on the west coast, Dr. W. F. Prince, was unwittingly making a very important contribution to this subject of multiple personality and its very close relationship to hypnotism. The reader must be careful to keep these two men separate for they were both friendly enemies during their entire lives. W. F. Prince passed his later years in Boston so that, with Morton Prince at Harvard, they could really quarrel to their hearts' content. Both, we should add, were men of the very highest ability, names that are respected and honored in the history of psychology.

Dr. W. F. Prince was probably America's greatest authority on psychic research or spiritism for the last ten or fifteen years before his death. Yet he conducted his research in this very difficult subject in such a way as to hold the respect of science. This is the more remarkable when we bear in mind the fact that his, of all fields, is open to suspicion of fraud, prejudice, and poor scientific methods.

His writings, found among the publications of the Boston Society for Psychic Research as well as the American and British Societies, are always characterized by moderation and a keen sense of scientific judgment. The unwitting contribution of W. F. Prince to this subject of multiple personality came about somewhat as follows. Dr. Morton Prince was receiving great publicity in scientific circles for his excellent work with Miss Beauchamp, and in the early 1900's very little was known about such cases. W. F. Prince in his ceaseless search for the one best spiritistic medium was working with a girl, Doris Fischer. He was astonished to find that Miss Fischer was also a case of multiple personality and, following the technique of the Harvard man, he used hypnotism to investigate his very interesting subject. To his astonishment and that of the world in general this case developed in almost identical fashion to that of Miss Beauchamp. There was a Sally, an Angel, and a Woman, although W. F. Prince did not use these names. Moreover in the course of the treatment he cured the condition in a fashion very similar to that used by Morton Prince. His Angel and his Woman were brought together as the real Miss Fischer through hypnotism, while his Sally was "squeezed" into oblivion. It is of interest to note that he adopted Miss Fischer as his own daughter and after the cure she gave every appearance of being a very healthy, well balanced personality.

The great significance of this case lies in the fact that W. F. Prince, one of the most careful investigators almost certainly created this case of multiple personality through the use of hypnotism, and this result was quite unintentional on his part. A striking example of the effects which operator attitude may have. We can visualize the process. Miss Fischer was an excellent hypnotic subject and of more than average intelligence. Morton Prince was just publishing his remarkable Beauchamp case. Dr. W. F. Prince, later her adopted father, was very much interested in this, doubtlessly the literature was lying around and he probably discussed the case in her presence. He certainly had in his own mind a very clear cut image of how the Beauchamp case was progressing. When he began his work with Miss Fischer, somehow this picture was conveyed to the subject's mind, whether through her own reading, his discussion or through unconscious hints which he let drop. This is almost certain because these cases of multiple personality simply do not follow a fixed pattern. The many examples we have in the literature are extremely varied as to number and type of personalities. That these two most complex of all cases should be identical is almost impossible. The evidence is all in favor of the fact that the Doris Fischer case was built up on the spot.

In fact there are some who will go even farther and claim that the Beauchamp case itself was at least guided in its development by the use of hypnotism. Even as late as 1905 or 1910 we did not know nearly as much of the importance which operator attitude may assume. If two men of this capacity could be completely deceived, the reader will see our reasons for questioning a great deal of the experiments reported by older investigators.

The work of the two 'Princes' carries us still farther into this matter of hypnotism and multiple personality. It sheds some very interesting light on the problems presented by spiritism, their argument here centering around the famous spirit medium, Mrs. Chenoweth. The reader will find her work discussed at length by W. F. Prince and others in the proceedings of both the American and the British Societies for Psychic Research. She was probably the best "mental" medium in America outside the famous Mrs. Piper, at the time of this investigation an old lady.

Mrs. Chenoweth gave the typical picture of the spirit medium when in trance. She was controlled by the spirit of an Indian girl "Sunbeam" who had been killed by a fall from a horse in the West many years ago. Mrs. Chenoweth would sit at her table with the "sitter" on the opposite side. Then she would pass into the trance state and Sunbeam would come to take charge. She would chatter along at a great rate in a girlish voice until the sitter interrupted by reminding her that he was there for a purpose. Then she would suddenly come "down to earth" as it were and give the sitter information which was supposed to come from the spirit world.

Some of this was very hard to explain unless we admitted supernormal power on the part of the medium. For example, one of the writer's friends reports the following. Sunbeam said that she saw standing beside him the form of his father, now dead. The sitter naturally asked how he was to be sure it was his father. To this Sunbeam replied.

"He says for you to carry out the following directions as proof. Go home, go to the cellar, look up his diary for April 16, 1896. There you will find that he bought five acres of land from a Mr. Jones on Long Island." The sitter went home, looked up the date in the diary and found the entry as described. He says he had never looked into his father's diary. Which proves that he was talking to his father? By no means. There are several other possibilities which might have explained it. The medium may have been a fraud, have gotten hold of the diary beforehand and so had the information, although this seems very improbable. Or the sitter may have an hallucination himself and have looked up the diary

after the manner of posthypnotic suggestion, rationalizing later as any good hypnotic subject will.

Fantastic? Possibly, but let us see what Dr. Morton Prince says. He was one of the world's best and he also lived near Boston, so that he could easily check up. And he did! His conclusions after investigating Mrs. Chenoweth were that she was a most interesting case of multiple personality-nothing more. "Sunbeam" was a sort of Sally and the other controls-for there were others-were merely the same thing he had already seen in the case of Miss Beauchamp. Certainly they were not visitors from the spirit world communicating with man through the body of Mrs. Chenoweth.

His opinion was thus in flat contradiction to that of W. F. Prince. To be sure, the latter was always very careful in his statements but the writer, who knew both these men, is convinced that Dr. W. F. Prince felt Mrs. Chenoweth did have supernormal abilities. Just how one would explain these abilities was a different matter, whether by spirit-intervention, telepathy, or clairvoyance, but he was convinced they existed.

Our point is this. Here we have possibly the two best men in the world as to qualifications investigating the best medium in America. Their conclusions were directly contrary, the one leaning towards an explanation only in terms of multiple personality, the other strongly inclined to see the supernormal in the revelations of the medium. If two men of this ability could not come to a solution of the problem, we must not expect too much from ourselves.

But we feel certain that we voice the vast majority of psychological opinion when we say that the mediumistic trance is nothing more than a state produced by autosuggestion, and as such is almost identical with the trance we see in somnambulism. Moreover, the various spirit controls are only manifestations of multiple personality, which again is so closely associated with hypnotism. We know that, with hypnosis, we can produce multiple personality. Hypnotism is also recognized as the best means to effect a cure. Furthermore, every case of multiple personality which has been subject to a psychologist's experimentation has always turned out to be an excellent hypnotic subject. If he does not prove to be such, we may take it for granted that he is bluffing-for an attack of multiple personality, a fugue such as that suffered in the case of Ansel Bourne, can be easily faked and affords the "patient" a beautiful "out" when home conditions become unbearable.

The writer was present when Professor William Brown of Oxford attempted to hypnotize one such case which had received wide publicity in the English

press. Although one of the world's best operators, he had absolutely no success and promptly stated that he thought the subject had bluffed the whole thing. And such was probably the case.

It is quite impossible to discuss spiritistic phenomena at any length in a book devoted to hypnotism. Space does not permit. The writer had the opportunity of doing two years' fairly intensive work on psychic research while on scholarship at Harvard under the direction of the late Professor William McDougall and Professor Gardiner Murphy, now of City College of New York. If the reader chooses, he may look up reference to part of this work in the two excellent books of J. B. Rhine of Duke University, *New Frontiers of the Mind* and *Extrasensory Perception*. So the writer has at least a bowing acquaintance with the field and feels that his following statements would be regarded as fair by the vast majority of psychological opinion in the country.

First as to the existence of "spiritistic" phenomena. Definitely unproven. The writer would, however, place himself on record as being far more optimistic here than most of his colleagues. He insists that there are many reports of experiments and of occurrences which cannot be explained by the normal laws of psychology as we now know them. Further that it may be quite impossible to prove "spiritism" by the laboratory method. The cold scientific atmosphere which exudes from any professional psychologist may kill something essential to the manifestation of the supernatural. But that is only a personal opinion in which the writer realizes he is in a definite minority.

So first, "unproven." Secondly, why? Various reasons. Above all things, fraud. This is a commercial world and many people find it very easy to make a comfortable income by capitalizing on the desire which we all possess for absolute assurance of a life hereafter, for the ability to communicate with those we love who are now dead. The writer recalls one very interesting and amusing case. He was attending a spiritistic seance in London, England. During the course of this seance, which was held in very bad light, a chair travelled from one side of the room to the other with no visible means of propulsion. After the meeting came to an end he wandered over to the chair and noticed it had stopped over a hot air register. The answer was obvious. A string down the hot air vent was the cause of the movement.

At the next seance he arrived early and seated himself near the opening in question, hoping that the chair would repeat its performance. It did. So the writer kept his eyes glued on the chair convinced that sooner or later someone would untie a string. And they-or rather she-did. For when everyone's attention was concentrated on a guitar which was floating over the medium's table, a

small hand clothed in a black glove stole out from behind a near-by curtain to untie the string. The writer reached down and shook hands with no intention whatsoever of creating a scene. There was a ten second pause and the owner of the hand suddenly thrust a needle into the unwelcome hand. This hurt like sin so the writer squeezed and pulled, dragging a lady into the middle of the floor. The light immediately went on, the medium had hysterics, and the writer left at once by the window. Only on his way home did he realize he had left his hat behind where it still resides to this day for all he knows.

We divide the mediums into two broad groups: the physical mediums and the mental mediums. With the physical medium "things happen." Lights float around the room, music is heard, forms materialize, and objects, such as chairs, tables, or guitars, also float in mid air. Unfortunately these seances almost invariably take place in light so bad that it is impossible to detect fraud if such exists. The medium claims that the spirit forces cannot work in light. This is very unfortunate, for it also makes fraud very easy. We would also point out that the greatest of all physical mediums, D. D. Home, did his work in broad daylight. He produced better phenomena than any medium since, on one occasion floating out one window and in another six stories up! And this in excellent light! Unfortunately he did his work over fifty years ago. No one has been able to duplicate it since and so science is naturally sceptical.

We are probably on safe ground when we say that the work of the physical medium does not deserve serious consideration from science. No matter how good the "controls" in darkness there will always be the suspicion of fraud. One English investigator recently tried to use the infra-red camera, which takes pictures in darkness by means of rays invisible to the human eye. But again the "spirits" became sensitive and demanded that it be withdrawn. Science cannot waste its time in tiresome investigations under conditions which will always be open to question.

The "mental" medium, on the other hand, gives us a somewhat different problem. Here it is a question of messages from the dead, of clairvoyance, or of telepathy. To be sure there is plenty of fraud among mental mediums but at least they meet us on a fair basis. They do not demand conditions which a priori make investigation impossible. We may divide this "mental" group into the fraudulent and the genuine. For an expose of the method employed by the fraudulent medium we would refer the reader to two books, Abbott, Behind the Scenes with the Mediums and that by Price and Dingwall, Revelations of a Spirit Medium. The genuine spirit medium is in a class by himself. There can be no doubt of his-or her-sincerity. The "trance" is genuine and the various spirit controls certainly act as if they had nothing to conceal. How, then, does

psychology explain the results obtained by such great mediums as Mrs. Piper, Mrs. Leonard, or Mrs. Chenoweth?

In the first place the trance is an excellent example of autohypnosis. The spiritistic trance and the hypnotic trance are identical to all intents and purposes. One is induced by the subject himself, the other with the aid of an operator. Who are the spirit "controls" such as "Sunbeam" who take over the control of the body during these seances, reporting messages from the spirit world and describing the various dead friends whom we contact? Simply the various personalities in a case of multiple personality, which as we have seen is so closely tied up with hypnotism.

The messages we receive? That is another question. In the writer's opinion, a question with not nearly as convincing an answer as the first two. First, we have the matter of unconscious cues and the possibility of great sense acuity on the part of the medium, or at least great concentration on tiny details as we mentioned in the case where the subject finds his mother's "picture." Remember that the hypnotic and mediumistic trance are essentially the same. What applies to one will hold for the other. For example, the writer was conducting some card reading experiments with a very intelligent sitter. The subject not in hypnotism, was trying to guess the playing card on which the operator was concentrating. The operator cut the jack of hearts and the subject immediately named the card correctly; Then he added, "I'm sure of that one."

"Why?"

"I heard you whisper it."

Yet the writer would have sworn he had made no sound. He found this occurring several times with this subject and also in isolated cases with other subjects. Now, in theory, this subject may have had very acute hearing quite apart from hypnotic or mediumistic trance. We know from psychology that thought generally involves tiny speech movements. The thinker literally "talks to himself." It might be that some people have such extraordinarily keen hearing that they could pick up these unconscious and very tiny sounds, so receiving some very valuable information. Farfetched, perhaps, but possible.

This also would apply to the sense of vision, even more so to the sense of touch. Some mediums ask to hold the sitter's hand. We all have at least heard of the marvelous ability of some people at "muscle reading." Suffice it here to say that this ability seems quite genuine and is accepted by psychology. Here the medium could possibly pick up expression of assent or dissent through muscle

"twitches." This also may seem like pretty difficult theory to accept, but it has its points.

More important, possibly, than either of these is the subject recognition of changes in the sitter's face. Those subtle expressions which would tell her when she is "hot" or "cold," as she starts out to make a statement. Here again some people may have this power of discrimination developed to a very high degree, much higher than that found in the average.

Then again we find that some mediums are expert at "fishing" for information. They will throw out a hint or suggestion, watch the sitter's reactions very closely and immediately follow up with "No, that's wrong," if the sitter seems to register disapproval. If the suggestion is acceptable, they will at once follow up cautiously, feeling their way, fishing for information, and get results which are quite astonishing. All this without the sitter's being in any way aware of what is taking place.

The psychologist also has another very potent criticism against the sitter himself. The human memory is very unreliable. For a fine treatise on just how unreliable, read the book by Hugo Münsterberg, *On the Witness Stand*. We cannot accept any reports of a mediumistic seance unless a secretary was present and took down all the proceedings in shorthand.

The writer had a case which illustrated this in very fine style. A friend of his had a sitting with Mrs. Chenoweth. He came away enthusiastic reporting that the medium had given him fine evidence that she was actually talking with his father. The writer had this friend hand in a report on the sitting, and then proceeded to "work" on him for the next two weeks with a view to making him change his story. Certain parts were greatly magnified during various conversations, others were completely omitted, certain new details were seized on and inserted.

At the end of this two weeks period the sitter was asked for another report on the plea that the former one had unfortunately been lost. The two reports turned out to be very different, so different in fact, that they were quite worthless as evidence. The average sitter does not realize how unreliable his own memory is or how his memory of the seance may be changed by later additions and subtractions. So, in scientific investigation we always insist on a secretarial report of what has taken place at a sitting with the "mental" medium. Yet, for all these objections, the writer still feels that there are many points which have not been cleared up. Read, for example, Podmore's *Phantasms of the Living*, or look up the sittings of Piper, Chenoweth, or Leonard in the proceedings of the

various societies previously mentioned. The writer does not claim that they prove spiritism, even the supernatural but they certainly have not been explained away to his satisfaction. Also many experiments on straight telepathy included in these proceedings as well as evidence for clairvoyance. Whatever the explanation, they are not as yet explained. Nor are the results obtained by Rhine at Duke University to be brushed aside lightly as many of our critics seem to think. The waving of the magical psychological wand with the word "bunk" may satisfy the magician but not the audience.

In later chapters we will develop at greater length on this thesis of states closely related to hypnotism. For example, read Healy's book, *Mental Conflicts and Misconduct*. Bear in mind that emotion gives identical results with hypnotism and see how easily his cases of kleptomania or compulsive stealing fit into the picture of the posthypnotic suggestion. No hypnotist in his laboratory could have done better than nature "in the raw."

Indeed, so closely related is all functional insanity to the phenomena of hypnotism and suggestibility that the picture seems almost too simple. The compulsions, fears, and delusions of the insane and the neurotics look very much like the posthypnotic suggestion while the so-called Freudian "complex" is literally its twin brother.

Crime, insanity, but most important of all, our everyday life. We can more or less isolate the two first in our jails and our asylums. At any rate we don't approve of criminals and the insane, but we do most sincerely approve of ourselves and our neighbors. And here, unfortunately, is where hypnotism does its most terrible damage. Consider the present World War. All the insanity and crime we have in this world of ours becomes a colorless grey compared to the lurid red of bursting bombs and torpedoes.

It has always been the writer's contention that Hitler is the greatest hypnotist of our day, and this statement is not just a play upon words. To be sure he may never have read a book on the subject or know the meaning of the word. We recall the gentleman in the old French play who was delighted to find he had been speaking prose all his life. We can I think, make out a very convincing case that basically Hitler's emotional domination of the crowd-or, speaking professionally, his attack, is only the attack of the stage hypnotist, one step removed. If we can only understand the laws beneath mob psychology, perhaps we can be happier and more useful in this sadly torn world of today. And then, again, perhaps we cannot. That will depend on ourselves.

Chapter 5 **THE BASIC NATURE OF HYPNOTISM**

MAN is incurably a mystic. Ever since the day, some one hundred thousand years ago, that old Neanderthal man first began burying his dead, probably long before, man rolled his eyes in horror at the forces of magic and the spirits of the departed. After all, he had good evidence. He dreamed and in his dreams he saw his dead enemies, so they were still alive. His hazy thinking could not keep dreams and reality separated. Then again in his dreams he visited places many miles away, so obviously his spirit could leave his own body in sleep and travel long distances. These events were very real to him.

We have a story from Australia that on one occasion a tribe of friendly blacks suddenly swept down on a settlement, killing and burning in the most ferocious manner. Why? The medicine man had a dream. He was at the white settlement and the whites were preparing to attack them, their friends. He was so furious over this treachery that he promptly gathered all his followers together and tried to wipe out the whole lot. From his viewpoint he was quite right. His spirit had visited the white village and, after all, he could certainly believe his own eyes.

This may seem very silly to us but it was terribly real to our ancestors. With the Australian no death was natural, everyone died by magic. So when your brother died the medicine man, with his own magic, found out who killed him. Then it was your duty, as his brother, to carry on the "blood feud," and kill the culprit. His relations did the same and everyone was happy, for these old savages dearly loved the warpath.

One of the very worst tricks you could possibly play on your enemy was to move him or disguise him when he was asleep. In sleep the spirit left the body and wandered over the country. That was quite clear from dreams. So you waited until your opponent was sound asleep then quietly moved him to another house. Or just as good, you put a mask over his face. Then the returning spirit could not find the body to which it belonged and your hated enemy went insane, robbed of his soul. Ridiculous? Yes, but many a savage has died in quick violent fashion, for playing just such pranks on his neighbors.

Even Plato, the great Greek philosopher, agreed that anyone found sticking pins in a wax doll should be put to death. It was perfectly reasonable. No one would deny the power of magic. One of the best ways of killing your enemy was to make an image of him in wax then stick it full of pins. Better still, put the wax figure in front of the fire. As it gradually melted away he would weaken and die. Indeed only one hundred fifty years ago in Europe we find the hospital conditions terrible. The insane were chained in the filthy cells of Bedlam or other hospitals, sport for the public who were allowed to prod them with poles or stick them with pins. Insanity was the result of evil spirits and man could do

nothing against these. God was punishing them for their sins, so man helped on the good work, making their lives a living tragedy.

We must always bear these facts in mind when we consider the history and the theories of hypnotism. Of all branches of science it was the most weird, lent itself best to a mystic explanation, as is evident even today. Many parents who would not hesitate to have their children's tonsils out tomorrow, if necessary, would be pretty horrified if the doctor suggested using hypnotism to cure, shall we say, nail biting. We are not so very far ahead of our head hunting ancestors. And hypnotism, without doubt originated right back among such ancestors. Not as hypnotism, to be sure, but as part of their religious and mystic ceremonies. For example, in the initiation ceremony of the Chippewa Indians we have as fine a form of group hypnotism as the best operator could demand. The boys at initiation were lulled into this magic sleep by the chanting of the medicine man and there instructed in tribal customs. Some even developed anaesthesia to pain and later performed prodigies of valor without feeling their own wounds.

But this could hardly be classed as hypnotism, although it was indeed that. The Indian knew nothing of the scientific laws governing the state and while he used it most effectively it was always linked with the supernatural. So also were the sleeptemples of ancient Egypt. To these the sufferer would come, would be thrown into trance by the priest and while in trance would be visited by the various gods who were the patron saints of medicine. These temples later made their way into Greece and Asia Minor, and represent a very interesting stage in the development of hypnotism but contributed nothing. The practices used herein appear to have vanished completely with the arrival of the Christian era. Then hypnotism and all its many related phenomena passed into oblivion, so far as actual practice was concerned. The Church had a hearty distrust of all such "black cults," linked them to the devil himself, and anyone practicing the same might easily find himself burning at a stake. We have some most interesting tales of persecution during the so-called dark ages, by the Catholic Church at first, but in later times by the Protestant Church and by the lay authorities themselves. We cannot fix blame for this on any one group. All humanity had an unreasoning fear of black magic and rooted it out with savage brutality. One German story shows how, at least in one instance, the victim turned the tables on his persecutors in tragic style. A German was to be tried for sorcery. He was an alchemist, one of those very early chemists who were regarded as the blackest of the black. He realized he had no chance of escape, so wrote his daughter asking her to come and watch the fun.

Half a dozen judges presided at the trial under the chairmanship of a prince. The culprit was brought in and formally accused of being a wizard. He at once

pleaded guilty, and that, so to speak, was that. But with the victim safely convicted his judges decided on getting some information. Very famous in these days was the "witch's supper" at which all these people were supposed to gather and plot against honest men. So one of the judges asked the victim, since he admitted his guilt, to tell them when the witches had last met.

"Sunday at midnight."

"Will you describe it to us?"

"I would gladly, but why waste time? You were there."

"I was not."

"You certainly were. You and these other two judges," singling out two more whom he particularly disliked. "Prince, I accuse these three men of wizardry." Then he went on to describe a weird scene in which he, the three accused, and the other witches were plotting to spread a terrible pestilence over the whole state. Result?

"Burn the lot of them," said the Prince.

We imagine that questions were a little more discreet from then on. The scientific study of hypnotism begins with a Viennese doctor named Mesmer who lived during the American Revolution. As a matter of fact, Benjamin Franklin, as our ambassador to France, sat on a board of the French Academy of Medicine which pronounced Mesmer a fraud and drove him from Paris.

Actually this man was not a fraud in any sense of the word. His ideas are weird as we read them one hundred seventy years after his time, but Mesmer was probably quite sincere in all his statements. We must bear in mind that he lived at the dawn of medical science, at a time when Franklin himself said, "There are good doctors and bad doctors but the best doctor is no doctor."

In reality Mesmer contributed practically nothing to the science of hypnotism. Hull says, "His theories are of very considerable interest to the historian of the growth of science, perhaps not so much for the amount of truth they contained as because it has taken the world such a long time to separate the grain of truth from its enormous husk of error." (1)Clark L., Hypnosis and Suggestibility, p. 5.

The University of Vienna at that time had perhaps the world's best medical school. Here he wrote his medical thesis in 1766 on the influence of the planets upon the bodies of men! Today no medical school in the world would consider such trash, but times have changed. Then anaesthesia was unknown, the germ theory was still one hundred years in the future and insanity was the work of the devil. So we must judge Mesmer in the light of his times, a capable doctor

who dared to blaze new trail and who was master of the medical knowledge of his time, such as it was. To be sure he had a very shrewd financial eye and used his knowledge to fill his own purse. But that is not unheard of, even in this enlightened twentieth century.

Mesmer was a very keen observer. The principle of the magnet with its two poles was just being investigated. He noted that the magnet-like the planets- could exert its influence at a distance. So he worked out his theory. The human body, with its two sides, was like a magnet, with its two poles. Disease was caused by an improper distribution of the magnetic fluid, the animal magnetism which this living magnet threw off and to cure disease we had to restore the balance, so to speak.

This animal magnetism was a gas or fluid, therefore somewhat different from that of the minerals. It was under the control of the human will, hence to this day we have the tradition of "will power" in hypnotism. To direct its flow the individual must concentrate with all his strength and look his victim firmly in the eye. Hence the "dark hypnotic eye." Then as it flowed largely from the hand, the operator would make long passes over the body of his patient, from his head to his toes, passing the fluid into the sufferer's body. Should the subject go into a trance, he was awakened by reversing the process. The passes went from toes to head, so withdrawing the influence. Mesmer actually never got quite this far, but such was the standard practice of his immediate followers, the "Mesmerists," and we see many of these practices still used by the stage hypnotist.

In reality he had quite a lot to go on here, for the magnetic fluid was quite visible-to some people. Many "sensitives" could actually see it streaming from the eyes and hands of the operator. Of course, this was simply a visual hallucination, now so well known in hypnotism. But in Mesmer's time no one realized that such a thing existed so there was no reason to reject the word of those somnambulists who reported and described the fluid in question.

This fluid had many interesting qualities. It could be reflected by mirrors. It could operate at a distance. More interesting, it could be confined in a bottle and shipped to a sufferer in any part of the world. Most interesting of all any good "magnetist" could magnetize any object, generally a tree in the village green. Then the whole village could gather round this tree, receive the benefits of Mesmer's great discovery-and the operator collect his fee.

Mesmer's own clinic in Paris deserves special mention, for it must have been a remarkable sight. The large hall was darkened and soft plaintive music

accompanied the treatment. Here was the famous baquet, a huge open tub about a foot high, large enough for thirty people to stand around for treatments. The tub itself was filled with water, bottles arranged in a symmetrical order, iron filings and ground glass. The whole thing was provided with a wooden cover and through this cover came jointed iron rods which the patients applied to their ailing parts. Mesmer himself would appear at the right moment in a robe of brilliant silk, passing his hands over the patients, fixing them with his gaze and touching them with his iron wand. People suffering from all kinds of sicknesses were cured after a few such treatments. This is, of course, exactly what we would expect from our present day knowledge of hypnotism.

Mesmer's success was probably his undoing, for he drew much trade away from the regular doctors. These only needed some excuse to vent their spleen and the opportunity came in 1784 for the French Government appointed a commission including Franklin to investigate the whole thing. This pronounced Mesmer a fraud. Immediately his popularity fell off and he left Paris shortly afterward. This verdict meant very little when we consider the ignorance of the eighteenth century doctor. Vesalius was almost burned at the stake when, a little before this time, he insisted on cutting up human corpses to study anatomy. After Leeuwenhoek discovered the microscope and described germs it needed two hundred years and the genius of a Pasteur for "science" to recognize that they might be of importance. So, even had Mesmer been right the verdict would probably have been the same. It so happened he was wrong but honestly wrong.

But, as we said before, Mesmer contributed practically nothing to modern hypnotism. His theories were completely wrong and most of his pupils followed blindly in his lead. He did, however, "throw the fat in the fire," so to speak. Once he had invented his technique, it was almost impossible not to stumble on the phenomena of modern hypnotism. The fact that it took one hundred years for the story to unravel itself, and that we still know so little about many important phases merely illustrates the slow pace at which science must progress.

Mesmer did not hypnotize or try to hypnotize his subjects. Nevertheless some of them went into spontaneous hysterical convulsion as they received treatment around the tub. These convulsive attacks came more and more into the limelight. A report from the Royal Society of Medicine at this time says, "From a curative point of view animal magnetism is nothing but the art of making sensitive people fall into convulsions."

In 1784 one of Mesmer's pupils, the Marquis de Puysegur, stumbled across genuine hypnotic somnambulism. He "magnetized" a young shepherd, Victor,

but this boy fell into a quiet sleeping trance instead of into the usual convulsive attack. In this state he went about his business and when he "awakened" knew nothing of what had happened. This was something entirely new and, as such, immediately attracted great attention. Mesmerism, by sheer accident was on its way to becoming hypnotism. To be sure the main interest in this new phenomenon of somnambulism was mystic. The subject was supposed to develop clairvoyant powers, to have the gift of thought transference, even to speak with the dead. At the same time the , mesmerists were getting dangerously near the truth, so near that discovery of the real facts was just a matter of time. By 1825 hallucinations, anaesthesia and the posthypnotic suggestion had all been described.

Yet progress was painfully slow. One of the greatest figures in these days was an Englishman named Braid. He did his early work in the 1840's, first used the term hypnotism, rejected completely the idea of the magnetic fluid and saw that hypnotism was something quite different from ordinary sleep. He also invented an hypnotic technique, still used by many operators, that of gazing at a bright object held in such a position as to strain the eyes.

But we still find that weird mixture of truth and absurd error. Phrenology was then in vogue and Braid supported the theory known as phreno-magnetism. He found with his subjects that if he pressed the "bump" of pugnacity, the subject would promptly want to fight, if it were that of reverence, the subject might fall on his knees and pray. In his later writings he saw the absurdity of these claims and even appears to have hit the real keynote of hypnotism, namely, suggestibility. Braid was more or less the voice of one crying in the wilderness. With his death there was no further immediate interest in England.

The French, however, were more alert to possibilities. Around 1815, the Abbe Faria made a very important discovery. If the prospective subjects were seated around the room and allowed to relax, then the operator had merely to repeat the word "sleep" several times in an impressive voice. Certain of those present would at once fall into somnambulism. This was a very Important step and the French investigation finally ended in the work of Liebeault, the real father of modern hypnotism.

This man was one of those peculiar people who mark off the milestones in science. A physician, he settled at Nancy, France in 1864. Here he proceeded to practice hypnotism among the poor, refusing any fees for his services. He even wrote a book setting forth his theories on the subject-and sold exactly one copy.

But that did not discourage Liebeault. For twenty years he kept at his task. Then, fortunately, he won the enmity of a great French physician, Bernheim, a professor in the medical school at Nancy. Bernheim for six months had been treating a patient suffering from sciatica, with no success whatsoever. In desperation this patient turned to Liebeault, who quickly cured him by means of hypnotism. This, to Bernheim, was a professional insult. He knew of Liebeault, thought him a "quack" and decided he would expose this medical menace. So he visited his enemy's clinic-and realized that Liebeault was really a genius. Bernheim immediately began a serious study of hypnotism and for the next twenty years devoted all his great talents to serious work along these lines. His position gave the subject respectable standing and to his eternal honor, he never overlooked an opportunity of directing attention to Liebeault. The latter even sold the remaining copies of his book!

Bernheim realized that the key to hypnotism was suggestion. A doctor, his main interest was along medical lines and his great book *Suggestive Therapeutics* covers this field in great detail. This work stands in a class by itself, only surpassed by the very recent book of Clark L. Hull, Yale University. Hull, as a psychologist, has a much wider range of interests than did Bernheim, so he broadens the field and attacks the problems with modern experimental methods.

Bernheim perfected the "sleeping technique" now so widely used in laboratory practice and described carefully all the phenomena which we have noted in Chapter II of this work.

But animal magnetism, like the cat, proved to have the proverbial nine lives. While Bernheim was doing his great work in Nancy, France, another Frenchman, Charcot, was investigating hypnotism in Paris. Charcot gives us a classic example of what may happen when an authority in one field attempts work in another. One of the world's great anatomists and neurologists, Charcot did pioneer work in these fields which was of the very highest grade. In hypnotism he made about every possible mistake. This is the more amazing because Bernheim, also in France, pointed out these errors as they occurred.

Major hypnotism, as Charcot labelled his discovery, showed three sharply marked stages; lethargy, catalepsy and somnambulism. In the first, induced by closing the subject's eyes, he could neither hear nor speak. If now the subject's eyes were opened he-or rather she, for he worked only with women-was still unable to hear or speak. But in this cataleptic stage the limbs would remain in any position in which they were placed. Finally, if the top of the head were

rubbed somnambulism was induced. This was practically the same as the trance described by Bernheim.

Many of the results obtained by Charcot were amazing and can be attributed to his complete ignorance of operator attitude. He, as Mesmer one hundred years previously, was convinced that the magnet and the principle of magnetism explained everything. If the subject had a paralysis or a contracture in his right leg, then, if a magnet were brought close to the leg it would immediately shift to the left. More interesting, certain drugs could make their power felt right through a corked bottle. A closed phial of alcohol held near the subject's head would give the proverbial "jag," certainly an inexpensive way of going on a spree.

Bernheim showed that all these curious effects could be produced when they were described in the subject's presence, and it will be recalled that Charcot maintained his subjects were completely deaf in his first two stages. How a man of his scientific skill could have made such a childish slip is difficult to see, but he did. Bernheim produced all Charcot's phenomena by this means, then went a step further. He substituted for the magnet a pencil, a piece of paper or nothing at all, but he got just as good results. In other words, the subject knew what was expected and obliged.

In vain did Bernheim point out to Charcot that the subject in hypnotism is never deaf, is always on the alert for any suggestion. Charcot sailed serenely on. More amazing still is the fact that his great pupil, Alfred Binet, sailed right along with him. Another classic example of how the greatest minds may be blinded by prejudice. For Binet was a great mind, the father of the Binet-Simon test, one of the greatest contributions to psychology, and also the author of *La Suggestibilité*, an original and scientific work. Yet with Fere he published in 1888 his classic book, *Animal Magnetism*. This was no doubt inspired by Bernheim's own work, *Suggestive Therapeutics*, which came off the press two years before. Binet rose in defense of his beloved master, Charcot, running a series of experiments intended to prove beyond any question that Charcot was right.

Hull, who is very impartial on all subjects, writes as follows on this attempt of Binet, "Even so, the fact remains that there has rarely been written a book containing a greater aggregation of results from wretched experiments, all put forward with loud protestations of impeccable scientific procedure and buttressed by the most transparent sophistries, than this work of Binet and Fere." (2) Clark L. Hull, *Hypnosis and Suggestibility*, p. 16.

It is curious indeed that two really great men, 2 Charcot and Binet, could have made such grotesque errors as did these two, even when they invaded a field with which they were unfamiliar.

Bernheim and his "Nancy" school finally laid the ghost of animal magnetism, although every so often we find some operator who is still a follower, at least in part, of Charcot's teaching. One of these is Professor William Brown of Oxford, a psychologist of excellent repute. He does not for one moment support Charcot's crude ideas of magnetism but does follow the "Paris" school in one interesting and rather important detail. Charcot worked only with hysterical women patients, and advanced the theory that hypnotism was a symptom of hysteria. This Bernheim vehemently denied and his views are almost universally accepted.

Nevertheless Brown still holds to this attitude and his opinion is certainly entitled to great respect. The writer, one of Brown's former pupils, feels that he is wrong in this stand. The Oxford psychologist is really a psychiatrist. It is just possible that too much association with mental disease has given Professor Brown a bias in this direction, a tendency to regard everything abnormal as symptomatic of a sick personality; but he still lodges a minority protest. The great majority of psychologists would point out that good hypnotic subjects, as a rule seem to be very normal people. To be sure, certain signs of dissociation as automatic writing, sleep walking, even hysteria, generally indicate a good subject. But most people who can be put into trance have no such history. Brown would reply that, in these cases, they are "potential" hysterics and the dispute must rest there until we have more evidence.

Bernheim himself made one serious error. He linked hypnotism with sleep, regarding the trance as a special form of normal sleep. As a matter of fact, this is a very natural mistake to make, one into which Pavlov, the great Russian psychologist, also fell. But if the reader cares to look up the experimental evidence on the subject, as set forth by Hull, he will be convinced that sleep and hypnosis have very little in common. The subject is so much "awake" that it would be quite impossible for the reader to detect anything wrong, especially when the subject in question has been coached to act "normal." Moreover, if we test the person in trance, we find that he is quite normal in such things as the conditioned reflex, memory span, psycho-galvanic reflex and other psychological tests.

Confusion here is very easy, especially when the "sleeping" technique is used to induce hypnotism and the subject is not allowed to move about. Actually, many subjects will go into genuine sleep, even snore and lose all touch with the

operator. When told to awaken they sleep serenely on, but awaken quite easily if the operator gives them a slight shake. So the mistake of Bernheim, Pavlov and many others was quite natural. We needed the modern experimental laboratory to clear up the fog on this point.

Bernheim was familiar with and described in detail every phenomenon of hypnotism with which we are acquainted at the present day, at least in so far as his times and his interests permitted. Such modern psychological problems as the formation of conditioned reflexes under hypnosis he very naturally does not mention. And he was essentially a doctor, interested in curing patients. Here he was eminently successful. But by the same token he was not interested in the possible uses of hypnotism in education, crime, or warfare. Such problems were completely outside his field. Moreover, practically all of these early authorities, around the close of the nineteenth century, were medical men, their outlook was essentially that of Bernheim, so modern psychology naturally finds many a fascinating problem still unsolved.

Suggestion is undoubtedly the key to hypnotism. However, from the theoretical point of view we are today faced with a very interesting problem. Is it suggestion or dissociation which is really the fundamental cause of hypnosis? Does suggestion cause dissociation as illustrated in automatic writing, speaking with tongues and in all hypnotic phenomena or is it a tendency towards dissociation which makes the good hypnotic subject so suggestible? The writer feels that suggestion is basic. For reasons with which we are not familiar the individual is highly suggestible and dissociation comes as a secondary phenomenon, caused by this peculiarity in personality. But the issue is still open. Also, in so far as we are concerned purely theoretical. We can allow the professional psychologist to ferret out the answer and can proceed with our discussion. We can also leave to him that very vexing problem as to whether all suggestion is really autosuggestion, as Coue maintained.

For our purpose we can say that hypnotism is merely a state of exaggerated suggestibility, induced by artificial means. The vast majority of psychologists would accept this formula, with of course the usual reservations. We do not know what causes suggestibility. Is it acquired or inherited? Does it depend on dissociation or vice versa? We will admit our ignorance and proceed from the assumption that suggestion is the key to hypnosis.

This at once opens other fascinating problems to the general reader. There are other causes of high suggestibility beside hypnosis. These are very evident in our everyday life, in fact they are all important. What is the relation of hypnotism to these other factors? Is it not perhaps possible to explain all with

one general formula? Might we not, using hypnotism as a point of departure, be able to understand the phenomenon of Hitler, the basis of mob psychology?

With this end in view the writer advances the theory outlined in the next few pages. Hypnotism is of fascinating interest, but if it has no use outside the psychological laboratory, or in handling the insane it must, of necessity, be of very little practical use to humanity as a whole. But if we can advance a simple working theory which explains both hypnotism and, say, Hitler at one and the same time, then we are being of much greater service to the general public.

In our opinion we can do so and the reader is asked to give special attention to the following pages of this chapter. The hypothesis we advance is intended to cover the subject in very simple fashion. We purposely avoid many neat psychological questions as being of interest only to the professional psychologist. This leaves us open to the charge of oversimplification but a popular work such as this must view the question "writ large."

The details we leave for those round-table discussions wherein men of science delight to go scalp hunting. As a matter of fact the Iroquois raider and the scientist are twin brothers. Scalp hunting is the great national pastime and a very legitimate pastime at that. If the scientist "leads with his chin," he may be perfectly certain that, before many harvest moons have passed he will be defending the old log cabin against the marauding hordes. That is all to the good. It keeps him on his toes and guarantees scientific progress.

The human brain is a very complex photographic plate. The analogy is crude but it will serve as an illustration. Needless to say it is a repeater in the sense that photos are being registered every moment of our waking existence, and by all the various sense organs of sight, hearing, smell, taste, skin senses and others which are more obscure. We, however, are interested in one peculiarity of this plate which is of great importance. It is provided with its own sensitizer. Most of the photographs, the experiences of everyday life are more or less on a dead level. They make a certain impression, we note it and act accordingly, then we probably forget the photo in question for the rest of our natural lives.

Some photographs-experiences-however leave a lasting impression. Five years ago we were in an auto crash. Why should we remember that vividly, but not be able to recall anything else for that entire year, at least not recall without an effort. Just common sense! Possibly, but why? We distinctly and vividly recall that at the age of five, or six, or seven we were bitten by a police dog while visiting our uncle's farm. We will have to think in order to recall any other

details of that visit, yet the dog experience keeps flashing through our mind even when we don't think. Again it is just common sense but why?

Because at that particular moment the sensitive plate in the brain was vastly more sensitive than at any other time during the whole year. The negative was "over exposed," to draw another analogy from photography and the photo indelibly burned into the plate. Nothing we can do in later life will ever remove that scar. All other experiences of that entire year may become cloudy, may finally disappear completely so far as we are concerned, but every time we see a police dog that old experience of thirty or fifty years ago stands out as vividly as if it were yesterday.

Moreover, as we will see in later chapters, these are just the experiences which really count. They determine our personalities. We could take an entire college course on dogs, could meet all kinds of dogs anywhere. We might even write a book on dogs but we know one thing for certain, we do not like the police dog. Why? Because one bit us fifty years ago. It might just as well have been a collie or a bull, but it wasn't. Logic has nothing to do with the situation. It was a police dog so they are damned in our eyes for all eternity.

It is this type of non-logical, highly emotional reaction which makes the world go round, which leads us into the state of chaos which exists at the present day. For society is essentially a society of human beings which, in many cases, takes its cue from some one leader. Should this leader be unbalanced, overambitious, or a weakling, then all too often his followers will be sacrificed at the altar of his fanaticism or his incompetence.

There are, as far the writer can see, two known devices by which the brain plate can be sensitized. One is hypnotism, the other is emotion. Suggestions given in hypnotism or under emotional strain are carried out with an energy which is quite foreign to normal human conduct. The reader will note that suggestion does not have to be verbal nor recognized as suggestion at the time. Any experience flashing on the mind at such times may act as a suggestion. In hypnotism these are generally by the spoken word, but in everyday life this is far from being the case. The police dog incident was a very strong suggestion. The newspaper is one of the most powerful of suggestive media, especially in a controlled press. But the controlled radio is easily the most potent weapon we have for attaining such ends in our modern civilization.

What has all this to do with hypnotism? Let us take a little excursion into psychology for the next few pages and perhaps we can then see the very close tie-up between hypnotic suggestion and the type of suggestion which is so

potent in our daily lives, the suggestion which falls on a brain sensitized by emotion.

The great driving force behind all animal activity is the pleasure-pain principle, the search for pleasure, the avoidance of pain. No normal human being will deliberately step on a tack, unless of course there is a higher pleasure involved. If his child is in danger of being burned to death he may not only step on a tack but get fatally burned himself attempting a rescue. These things are relative. We sit quietly in the dentist's chair and submit willingly (?) to his tortures for we know only too well that if not today, then six months from today he will have us at his mercy. And that six months will not make the ordeal any easier. Also in the human these pleasures may be ideal. Read the tortures which the early Jesuits suffered at the hands of the Indians in *The Bloody Mohawk* by Clarke. It does us modern hampered humans good at times to realize what men will suffer for an ideal. Yet that suffering was in answer to the pleasure principle, weird as the contradiction may seem to the average of humanity.

This pleasure principle has its basis in the instinct. In view of the fact that the word instinct is unpopular in scientific circles these days the reader may think in terms of drives or impulses if he chooses. Psychology has officially thrown instinct out the front door, then given it a new name and welcomed it in by the kitchen entrance. The writer prefers the word instinct and will use it in spite of its black name in psychological circles.

These instincts are almost always of such a nature that they aid in survival of the species, but not necessarily of the individual. Pleasure is the reward which the animal receives for carrying out the instinct, pain is the red light, the warning not to repeat the offense in the future.

Moreover, since these instincts are basic, are the foundations on which a species survives or is exterminated, it is very important that they be reinforced. Closely tied up with these various instincts we have certain emotions, such as fear, rage or love, and these emotions together with their attendant feelings of pleasure or the opposite sensitize the brain. Thus experiences which directly arouse our instincts tend to make a greater impression on the brain plate, to be remembered better, as we say. We can look on them as suggestions.

Finally, just a word as to intelligence. It was long the custom to contrast instinct and intelligence. Instinct represented the baser side of man, whereas intelligence was something on a much higher plane, the pure and noble side of man's nature. Actually intelligence is the servant of the instinct, of the pleasure principle. We use our intelligence to gratify our search for pleasure, be these

pleasures low or idealistic. We may reason with a child for days to no effect. We may tell little Johnny that he is not to play with strange dogs, and he is unimpressed. Let one of those same dogs take a nip at him and he has learned his lesson. That one experience, falling on a brain sensitized by fear, will leave a lasting impression. It is "burned in" so to speak.

Hypnotism and emotion, be that emotion pleasurable or the opposite, are the only forces which we are certain have this effect on the photographic plate of the brain. It seems possible that certain drugs, such as alcohol may under certain circumstances, produce the same results, but we are not certain. It is highly probable that hypnotism in its turn depends on emotion. Ferenczi, a psychoanalyst, has given a formula which may very easily express the situation. He says, "Suggestion depends on transference and transference is a shifting of the libido."

In plainer English, his theory runs somewhat along these lines. In hypnotism the operator takes the place of the subject's parent, father or mother. The subject transfers to the hypnotist the feeling he had for this parent as a child. The attitude of the Operator in question will determine whether he is to be father or mother. If the subject, as a child, was submissive to this parent, he will be a good hypnotic subject and vice versa. This Attitude of the child is obviously one of emotion, so that hypnotism, according to Ferenczi, would depend on emotion. A neat theory which may or may not be true. The writer is inclined to favor it.

lie that as it may, we can now perhaps see a little more clearly how the laws of hypnotism may become so very important in our everyday life. Every situation we face in life is a social situation, that is to say it involves other people. Almost invariably this situation involves a leader. He may be appointed, he may seize authority, or he may just gravitate to the top. The boss in the office is a typical example, the dictator on the radio not so typical but far more powerful. Now if by any device this leader can arouse our emotions, can "get under our skins," then his words, his suggestions, falling on our sensitized brains will have far more weight than those same suggestions given us by a stranger or in a magazine article where no emotion is involved. He is, to all intents and purposes, a hypnotist.

Our reactions may be antagonistic-negative suggestion but we will react violently. But if the dictator or boss in question knows his business he will take care that they do not arouse antagonism. He will appeal to the pleasure principle in some form or other. He will tell us that we are being persecuted, robbed, hemmed in. He will appeal to our patriotism, our love of home and

family. He will promise us security, wealth, glory if we but do as he says. And if he knows what he is about we will fall under his spell just as surely as a subject ever falls under the trance of a hypnotist.

This technique of "direct" or "prestige" suggestion we see clearly in the stage hypnotist. His success depends on a forceful, frontal attack. He never allows the subject's gaze to shift from his own and literally bullies him into the hypnotic trance. Here we have clear evidence of the emotional factor in hypnosis. The psychologist in his laboratory also uses this prestige suggestion although in a quieter form. But whether it be the stage hypnotist, the laboratory psychologist or Hitler on the radio results are the same, so far as psychology is concerned. The suggestions fall on a highly sensitized brain and such suggestions have tremendous force, a force altogether out of proportion to any value that the proposals, as such, may have.

Let us now consider a few facts which we have gathered from our study of hypnotism in the laboratory. One in every five of the human race are highly suggestible, at least half are suggestible to a very considerable degree. But here mere figures do not tell the story. That one-fifth has a power far beyond its numbers, for this type of man, acting under direct suggestion, is no mere average person. He is a fanatic in the highest-or lowest-sense of the word. The writer several years ago had a very unpleasant experience which illustrates the point. He wished to show the power of the posthypnotic suggestion so he suggested to Smith that, on awakening he would go over and insist on sitting in Brown's chair. Smith and Brown were relative strangers. When he was awakened, Smith paused a moment, then got up and walked over to Brown.

"Mind if I sit in your chair?" "Yes. I like the chair myself." Without a word Smith reached down, took Brown by the shoulder, and literally hurled him across the room. Then he sat down, muttering savagely that if Brown so much as opened his mouth he'd send him through the window as well. And he meant just that. A few such experiences teach the operator to "take it easy." On another occasion the writer suggested to a subject in hypnotism that an individual he particularly disliked was standing in front of the door. Without an instant's hesitation the subject strode up to the door and drove his fist through the panel. The individual who is highly suggestible, whether from hypnotism or from strong emotion, reacts with a passionate fury which leaves us other mere mortals staring in open-eyed wonder. But it is terribly real, as Europe can testify today.

There is still another line of approach which shows us the very close relation between the suggestibility of hypnotism and that arising from the emotions.

Basic to psychoanalysis, as outlined by Freud, is the so-called complex. Freud discovered that many of our early childhood experiences are forgotten in a curious sort of way. The forgetting is not passive but active; they do not just fade away into oblivion, they are literally thrown out of consciousness, they are "repressed" into the unconscious.

Such experiences are always unpleasant in nature and are forced out of consciousness in accord with the pleasure principle we have already stressed. Not only will the body not undergo pain willingly, unless for a future pleasure, but the mind also turns away from painful thoughts. The reader can easily think of exceptions, but we would again warn that many apparent exceptions are not real. A person may brood over bad treatment, which is unpleasant, but this in turn may bring up the feeling of self-pity which is very pleasant. Or he may plan revenge, thinking out various ways in which he will even up the score. This also may be pleasant.

Actually, however, the pleasure principle does not work in nearly as clear cut form in the mind as in the body. To a great degree we lose the power of repression after the age of five, although under great stress, as in war, it may still act very effectively. But it does work in childhood and Freud discovered that many of the neuroses have their origin in these repressions. They are "down" but not "out." Why they are not out is beside our discussion here, but once they become installed in the unconscious they can cause a lot of trouble.

For example, a child is badly frightened by a cat. Later in life he develops a fear, a phobia of cats. Yet strange to say the original experience in which he was frightened has been completely forgotten. Note the close resemblance to the posthypnotic suggestion. All we need is the hypnotist, rather than the cat, to give the suggestion and the parallel would be complete. These complexes act in very curious fashion. We can tell what causes them but we cannot predict results. A little boy was going to the store. He had to pass through a narrow alley way closed at both ends by a door. He got into the alley, the door behind him snapped shut, the door in front was closed. Then he found there was a dog in the alley as well, which promptly attacked him. This frightened the child very badly. In later life this incident was forgotten, repressed, but the complex did its work. Strange to say, however, he did not develop a fear of dogs, as one would have expected, but a fear of closed spaces-claustrophobia. His main idea was to get out of that closed alley. This was the autosuggestion which, given in a state of great emotion, later came out as a complex-a posthypnotic suggestion.

Another little boy was sliding down hill. His sled collided with a fence and his hand was badly cut. The doctor could not give him an anaesthetic, but had to

sew up the hand while he was wide awake, a very painful and terrifying experience. This was repressed and later came out, not as a fear of doctors, but a fear of black bags. The doctor had with him a black bag and the eyes of the child were riveted on this bag, for from here the doctor took the instruments which caused him so much pain.

This particular type of posthypnotic suggestion may come out in various ways, but the complex is, to all intents and purposes, a posthypnotic suggestion. Fright by a cat may appear in later life as a fear of cats. But it may just as easily come out in the form of a compulsion to kill cats. The writer had a friend who got himself in no end of trouble with his neighbors because of this. Or again it may appear as an obsession that people are looking at him with cat's eyes. This may become so strong that the individual may be very dangerous, even murdering his supposed persecutor.

But note again the very close tie-up between the complex and the posthypnotic suggestion. The complex, we know, is definitely caused by strong unpleasant emotion. Moreover, it works along almost identical lines with the posthypnotic suggestion. Not quite as specific, to be sure, but just as compulsive. Also we would find the other characteristic of the posthypnotic suggestion present if we cared to look, namely rationalization.

So here again we see that emotion and hypnotism seem to sensitize the brain in identical fashion. The suggestion which is given in either case leaves an indelible impression and provokes to acts which are quite apart from any intellectual processes the individual may use.

We may summarize the last few pages somewhat as follows. Suggestibility, present in all people to a greater or less degree, is very marked in certain individuals. This appears due to the fact that their brains can be very easily sensitized to "photographs"-experiences-either by hypnotism or by emotion. We do not know whether the hypnotic subject is always the one who in adult life is open to emotional sensitization, for no great amount of investigation has been done on this question. It does seem highly probable that hypnotism is closely linked to emotion, and these two types of brain sensitization are essentially one and the same.

Hence comes the great importance of hypnotism as a "laboratory" in which to study this whole problem of suggestibility, for the phenomena of suggestion are tremendously important. Around this question centers the whole problem of mob psychology, the psychology of such leaders as Hitler. **Without in any way juggling words we can truthfully say that he is one of the greatest**

hypnotists of all time. Yet he may never have heard of the subject. We will return to this in the later chapters of the book.